Appendix F ENVIRONMENTAL COMMITMENTS RECORD

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ENVIRONMENTAL COMMITMENTS RECORD

The purpose of the Environmental Commitments Record (ECR) is to ensure that the California Department of Transportation (Caltrans), as the Lead Agency for the project, meets its environmental commitments for the project by:

(1) Identifying each environmental commitment made for the project, as shown in the Recirculated Draft Environmental Impact Report/Supplemental Draft Environmental Impact Statement (RDEIR/SDEIS)

(2) Specifying how each commitment will be met

(3) Documenting the completion of each commitment

The ECR provided on the following pages will be used by the project team as a detailed reference throughout all the project phases, both to identify and track commitments and as the most current detailed source of information regarding those commitments and the status of their implementation.

The California Environmental Quality Act (CEQA), Public Resources Code Section 21081, and Sections 15091 and 15097 of the CEQA Guidelines, require that a Mitigation Monitoring and Reporting Program (MMRP) be adopted when the Lead Agency (in this case, Caltrans) certifies an EIR for a project. The purpose of the MMRP is to assign responsibility for the implementation, monitoring, and timing of each mitigation measure that has been identified to avoid or substantially reduce an identified adverse environmental impact of the project. The CEQA Lead Agency is required to ensure compliance with each of the adopted mitigation measures outlined in the MMRP because significant adverse environmental impacts could result from the project if the mitigation measures are not implemented. The ECR provided in this Appendix meets the requirements for an MMRP for the project under CEQA.

Once the project is constructed, a report will be included in the project files at Caltrans reporting the compliance of the project design, construction, and operations with the avoidance, minimization, and mitigation measures in the RDEIR/SDEIS.

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No.	Avoidance, Minimization, and Mitigation Measures	Responsible Party	Timing/Phase	Action Taken to Comply with Avoidance, Minimization, and Mitigation Measures	Date
LAND USE					
LU-1	Following approval of the Final Environmental Impact Report/ Environmental Impact Statement (EIR/EIS) for the Interstate 710 (I-710) Corridor Project and filing of a Notice of Determination with the State Clearinghouse, the California Department of Transportation (Caltrans) shall request that the affected Cities and the County to amend their respective General Plans to reflect the final alignment, interchange locations, and modification of land use designations for properties that would be acquired for the project, during the next cycle of amendments to each local jurisdiction's General Plan Circulation and Land Use Elements. The timing of the preparation and processing of such General Plan amendments will be at the discretion of each local jurisdiction. Caltrans will also initiate amendments to existing freeway agreements with cities where the build alternatives would add or remove access to I-710 or Interstate 405 (I-405).	Caltrans (Program Management; Project Design Engineer; Environmental Generalist; Construction Liaison)	Following approval of the Final REIR/SEIS and filing a Notice of Determination		
PR-1[1]	**Design Refinements for Alternative 5C at Parque Dos Rios.** If Alternative 5C is selected for implementation, the California Department of Transportation (Caltrans) will require the project design team to identify and incorporate design refinements to minimize the permanent and temporary uses of land from Parque Dos Rios during the final design of Alternative 5C.	Caltrans (Project Design Engineer)	During final design, if Alternative 5C selected as preferred alternative		
PR-2[1]	**Site Plan for the Remaining Area in Parque Dos Rios under Alternative 5C**. If Alternative 5C is selected for implementation, Caltrans will require the project design team to coordinate with the Watershed Conservation Authority (WCA) during final design to develop a plan for recreation facilities and landscaping/native plants on the remaining portion of Parque Dos Rios site, specifically addressing the provision of access to/from the park via the Los Angeles River Trail, the provision of amenities for park users similar to those in the current site plan, and revegetation of the remaining portion of the park with native plant materials similar to those shown in the current site plan.	Caltrans (Environmental Generalist; Landscape Architect; Project Design Engineer)	During final design, if Alternative 5C selected as preferred alternative		

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PR-3[1]	**Identification of Potential Replacement Property/Properties for Parque Dos Rios under Alternative 5C**. Caltrans will require the project design team to identify potential replacement property for the land used from Parque Dos Rios by Alternative 5C, based on continued coordination and consultation with the WCA throughout the environmental process for the project. Specifically, Caltrans will coordinate with the WCA to locate property/properties to replace the land permanently used at Parque Dos Rios (1.68 acres under Alternative 5C). The replacement property/properties must provide land and facilities equal to or greater than the land and facilities used by the selected alternative. Key considerations in identifying replacement property/properties are (1) the acreage of the replacement property/properties compared to the acres used at Parque Dos Rios, (2) whether equivalent or better recreational functionality can be provided on the replacement property/ properties, and (3) whether and what connections can be provided to other recreation resources from the replacement property/ properties, notably the Los Angeles River Trail and the remaining portion of Parque Dos Rios.	Caltrans (Right of Way Agent)	During final design		
PR-4[1]	**Identification of Potential Replacement Property/Properties for Parque Dos Rios under Alternative 7.** Caltrans will require the project design team to identify potential replacement property for the land used from Parque Dos Rios by Alternative 7, based on continued coordination and consultation with the WCA throughout the environmental process for the project. Specifically, Caltrans will require the project design team to coordinate with the WCA to locate property/properties to replace the land permanently used at Parque Dos Rios (the entire 8.6-acre park under Alternative 7 because of the limited functionality and accessibility of the remnant parcel outside the alternative footprint). The replacement property/ properties must provide land and facilities equal to or greater than the land and facilities used by the selected alternative. Key considerations in identifying replacement property/properties are (1) the acreage of the replacement property/properties compared to the acres used at Parque Dos Rios, (2) whether equivalent or better recreational functionality can be provided on the replacement	Caltrans (Right of Way Agent; Project Design Engineer)	During final design		

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	property/properties, and (3) whether and what connections can be provided to other recreational resources from the replacement property/properties, notably the Los Angeles River Trail.				
PR-5[1]	**Conceptual Site Plans for Potential Replacement Property/ Properties for Parque Dos Rios under Alternative 5C and Alternative 7**. Caltrans will require the project design team to develop conceptual site plans for the potential replacement property/properties, in consultation with the WCA, to ensure that the replacement property/properties and facilities are equivalent to or greater than the land and facilities used at Parque Dos Rios by the selected alternative. Those preliminary plans will identify the following: The recreation amenities and landscaping/native plant materials to be provided on the replacement property/properties. The connections that will be provided between the replacement property/properties and other recreation resources.	Caltrans (Right of Way Agent; Landscape Architect)	During final design		
PR-6[1]	**Acquisition of Replacement Property/Properties for Parque Dos Rios under Alternative 5C and Alternative 7.** Based on agreement with the WCA on the selected replacement property/ properties, Caltrans will require its Division of Right of Way and Land Surveys to acquire those selected property/properties.	Caltrans (Right of Way Agent)	Prior to construction		
PR-7[1]	**Final Site Plan and Plan Installation for Parque Dos Rios under Alternative 5C and Alternative 7.** Caltrans will require the project design team to coordinate with the WCA on the development of the final site plan for the replacement property/properties and on the selection of a contractor to install the recreation facilities and landscaping/native plants as shown on that final site plan.	Caltrans (Right of Way Agent; Landscape Architect)	During final design		

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PR-8[1]	**Transfer of Property Ownership for Parque Dos Rios under Alternative 5C and Alternative 7**. On the completion of the installation of the recreation facilities and landscaping/native plants, and on acceptance of those improvements by the WCA, Caltrans will require its Division of Right of Way and Land Surveys to deed the replacement property/properties to the WCA for recreation uses in perpetuity.	Caltrans (Right of Way Agent; Landscape Architect)	On the completion of the installation of the recreation facilities and landscaping/native plants, and on acceptance of those improvements by the WCA		
PR-9[1]	**Temporary Construction Easement at Parque Dos Rios.** At the completion of construction activities that use the TCEs at Parque Dos Rios, Caltrans will require the Construction Contractor to return the area occupied by that TCE to a condition as good as or better than prior to its use for the TCE. The required improvements for the rehabilitation of that area will be determined in consultation among Caltrans, the WCA, and the Construction Contractor and will be coordinated with the plan for the remaining portion of the park, as described in Measure PR-3, above.	Caltrans (Project Design Engineer)	At the completion of construction		
PR-10[1]	**Design Refinements at Cesar E. Chavez Park**. If a build alternative is selected, Caltrans will continue to identify and incorporate design refinements to avoid or minimize the permanent incorporation of, permanent easements at, and/or temporary use of land from, Cesar E. Chavez Park in the final design of the build alternatives.	Caltrans (Project Design Engineer)	During final design upon the selection of a Build Alternative		
PR-11[1]	**Future Boundaries and Improvements at Cesar E. Chavez Park**. During final design, Caltrans will request that the City of Long Beach define the final boundaries of Cesar E. Chavez Park that will be the basis for the transfer of land from the public street right of way for Shoreline Dr. through Cesar E. Chavez Park (currently owned by the City of Long Beach) to within the boundary of the park. This shall be an internal transfer within the City of Long Beach, as the City currently owns the land for both Shoreline Dr. and Cesar E. Chavez Park. • After the City has identified the new boundaries of the park,	Caltrans (Right of Way Agent; Landscape Architect)	During final design		

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	including the consolidation of the six discontinuous parcels into three larger parcels, Caltrans will coordinate with the City of Long Beach to: • Identify park improvements for the new areas added to the park, including removal of pavement and other materials from Shoreline Dr. the landscaping of those areas, and the provision of sidewalks and bicycle paths, as appropriate, connecting the consolidated parcels; • Develop a landscaping plan and bicycle path plan for the area over the 3rd St. depressed cross section; • Develop a plan for public access to the northwest portion of the park for passive activities such as wildlife viewing and walking. • Develop the plan for replacing the basketball courts in the portion of the park west of Cesar E. Chavez Elementary School.				
PR-12[1]	**Replacement of Basketball Courts at Cesar E. Chavez Park**. Caltrans will coordinate with the City of Long Beach on the replacement of the basketball courts that will be removed by the build alternatives in a location accessible to Cesar E. Chavez Elementary School and park visitors. Because the basketball courts are in the area used by the school, the replacement courts will be constructed no later than three months after closure of the existing courts.	Caltrans (Environmental Generalist; Landscape Architect; Project Design Engineer)	During final design		
PR-13[1]	**Temporary Closures of Portions of Cesar E. Chavez Park**. Caltrans will require the Construction Contractor to identify all proposed closures of areas within Cesar E. Chavez Park (including streets), no less than 90 days prior to when each closure would begin. No less than 90 days prior to when a closure would begin, Caltrans will require the project Construction Contractor to provide the following to the City of Long Beach Parks, Recreation, and Marine Department: • A map of each proposed closure, clearly showing each park area proposed to be closed temporarily, including identification of any street closures.	Caltrans (Resident Engineer; District Traffic Manager)	No less than 90 days prior to when each closure would begin.		

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	• A plan for providing signage and notifications through other public information outlets to inform the public and park visitors of upcoming closures of areas within the park. • Estimate of the duration of each closure. • Identification of alternative vehicle and trail routes to/through and/or around the park, as appropriate. • Identification of park features that would be unavailable to the public during the closure. Caltrans will require the Construction Contractor to obtain written approval from the City of Long Beach for each proposed closure no less than 45 days prior to when the closure would begin. Caltrans will require the Construction Contractor to provide an information telephone number that park visitors can use to contact the Construction Contractor for more information regarding individual closures. The Construction Contractor may also provide an information website. The contact number and website information are to be provided at the construction site, at/around each closed area, and on information signs discussing the individual closures. The Construction Contractor will also be required to provide this information to the City of Long Beach Parks, Recreation, and Marine Department. Caltrans will require the Construction Contractor to return areas of the park closed temporarily during construction to their original, or better, conditions after completion of construction, and those temporarily closed areas will be returned to the City.				
PR-14[1]	**Temporary Construction Easement at Cesar E. Chavez Park.** At the completion of construction using the TCE at Cesar E. Chavez Park, Caltrans will require the Construction Contractor or will compensate the City to return the area occupied by that TCE to its original condition.	Caltrans (Resident Engineer; District Traffic Manager)	At the completion of construction		
PR-15[1]	**Temporary Closure for Detour Road in Cesar E. Chavez Park.** When the temporary detour road in Cesar E. Chavez Park is no longer needed, Caltrans will require the Construction Contractor or will compensate the City to remove the road materials and return	Caltrans (Resident Engineer; District Traffic Manager)	During PS&E; when the temporary detour road in Cesar E.		

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	the area occupied by the temporary detour road to its original condition and/or incorporate enhancements to the road.		Chavez Park is no longer needed		
PR-16[1]	**Permanent Access to the Easement Area at Bandini Park.** Caltrans will coordinate with the City of Commerce to identify Caltrans' need for permanent access to the easement area to access the elevated freeway structure for inspections, repairs, maintenance, and other activities. In addition, Caltrans and the city will coordinate to identify possible park uses that could be developed within the permanent easement area, in the event the City wishes to use some or all of the easement area for future recreation uses. Any such uses would not be allowed to conflict with Caltrans' need to access the elevated freeway structure. The easement agreement between Caltrans and the City of Commerce will specify how Caltrans and the City will restrict public access to the easement area during periods when Caltrans is using the easement area (temporary fencing, and signing, etc.). The agreement for the easement will specify that Caltrans' access to the easement area will be from the adjacent State highway right of way and not through the park, unless approved in writing by the City of Commerce prior to any access through the park.	Caltrans (Environmental Generalist; Environmental Construction Liaison)	During final design		
PR-17[1]	**Development of Closures of the Los Angeles River and the Rio Hondo Trails.** Prior to any temporary closures of the Los Angeles River Trail and/or the Rio Hondo Trail, Caltrans will require the Construction Contractor to meet with the Los Angeles County Department of Public Works (LACDPW) to review the location and need for each closure. Detours for each closure will be developed in consultation with the LACDPW.	Caltrans (Resident Engineer)	Prior to any temporary closures of the Los Angeles River Trail and/or the Rio Hondo Trail		

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PR-18[1]	**Signing for Detours of the Los Angeles River and Rio Hondo Trails.** Caltrans will require the Construction Contractor to develop signs directing trail users to alternative routes in consultation with the LACDPW and the local jurisdictions through which detours would be routed. Appropriate directional and informational signage will be provided by the Construction Contractor prior to each closure and far enough away from the closure, so that trail users will not have to backtrack to get to the detour route.	Caltrans (Resident Engineer)	Prior to any temporary closures of the Los Angeles River Trail and/or the Rio Hondo Trail		
PR-19[1]	**Contact Information during Closures and Detours of the Los Angeles and Rio Hondo Trails.** Caltrans will require the Construction Contractor to provide a contact number and other information to trail users to contact the Construction Contractor regarding upcoming or active trail closures. The Construction Contractor will also be required to provide that information to the LACDPW and the City Public Works Departments in the jurisdictions where the closures/detours are located.	Caltrans (Resident Engineer)	Prior to any temporary closures of the Los Angeles River Trail and/or the Rio Hondo Trail		
PR-20[1]	**Restoration of Closed Areas on the Los Angeles and Rio Hondo Trails.** Caltrans will require the Construction Contractor to return trail segments closed temporarily during construction to the LACDPW in their original, or better, condition after completion of construction, and the ownership of those temporarily closed areas will remain with the original owner (the LACDPW).	Caltrans (Resident Engineer)	After construction is complete		
PR-21[1]	**Temporary Construction Activities on the Dominguez Gap and DeForest Treatment Wetlands.** At the completion of construction activities on the Dominguez Gap and DeForest Treatment Wetlands, Caltrans will require the Construction Contractor to return the area occupied by the construction activities to a condition as good as or better than prior to its use for construction. The required improvements for the rehabilitation of that area will be determined in consultation among Caltrans, the LACDPW, and the Construction Contractor.	Caltrans (Resident Engineer)	After construction is complete		

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COMMUNITY IMPACTS AND RELOCATION (INCLUDING ENVIRONMENTAL JUSTICE)					
C-1[1]	The Uniform Relocation Assistance and Real Property Acquisitions Policies Act (Uniform Act) of 1970 (Public Law 91-646, 84 Stat. 1894) mandates that certain relocation services and payments by the California Department of Transportation (Caltrans) be made available to eligible residents, businesses, and nonprofit organizations displaced by its projects (please refer to Appendix D, Summary of Relocation Benefits, for more detail).The Uniform Act provides for uniform and equitable treatment by Federal or Federally assisted programs of persons displaced from their homes, businesses, or farms, and establishes uniform and equitable land acquisition policies. If an I-710 Corridor Project Build Alternative is selected, design refinements to avoid or minimize impacts to existing land uses related to the temporary use and/or permanent acquisition of property will be incorporated in the final design of the selected alternative. Where acquisition and relocation are unavoidable, Caltrans will follow the provisions of the Uniform Act and the 1987 Amendments as implemented by the Uniform Relocation Assistance and Real Property Acquisition Regulations for Federal and Federally Assisted Programs adopted by Caltrans, dated March 2, 1989. An independent appraisal of the affected property will be obtained, and Caltrans will offer the full amount for the property (not less than the approved appraisal). While adequate comparable replacement housing appears to exist presently in neighboring cities, new replacement dwellings under Last Resort Housing may be considered for these cities as a method of providing comparable replacement housing to displaced persons who reside in areas where the replacement housing is low. Commercial and industrial land uses subject to partial acquisitions shall be evaluated to determine if they can be reconfigured on site in such a manner as to enable them to remain in operation. Caltrans shall work directly with property owners and the local jurisdiction to evaluate the feasibility of any such site	Caltrans (Right of Way Agent)	Prior to relocation of properties		

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	reconfiguration plans. If a commercial or industrial partial acquisition cannot be reconfigured to allow for continued operation, acquisition of the full property may be required. Caltrans shall cooperate with the affected jurisdictions in relocating business and residential uses to land designated for the given land use, preferably within the boundaries of the affected communities.				
C-2[1]	All build alternatives include improvements to the existing Bandini Blvd./Atlantic Ave. interchange, and as a result of widening and realignment of the existing southbound I-710 off-ramp to Bandini Blvd., acquisition and relocation of the City of Vernon Fire Station No. 4 will be required. While a potential site for relocation has not been identified at this time, Caltrans will coordinate with the City of Vernon in identifying a new site for relocation within the general vicinity of the existing station so as to maintain the existing response times and service area. In addition, the existing fire station would not be demolished until the new fire station is operational.	Caltrans (Right of Way Agent)	Prior to demolishing of the existing fire station		
C-3[1]	During final design, and consistent with the requirements of the Uniform Act, Caltrans shall negotiate with the City of Long Beach to determine appropriate action and/or identify an alternative location for the Multi-Service Center within the general vicinity of the existing facility so as to maintain the service area and mitigate for the acquisition of this center. The existing center shall not be demolished until the facility has been relocated and is operational.	Caltrans (Right of Way Agent)	During final design		
C-4[1]	During final design, and consistent with the requirements of the Uniform Act, Caltrans shall negotiate with the City of Bell to determine appropriate action and/or identify an alternative location for the Bell Shelter/Resource Bank within the general vicinity of the existing facility so as to maintain the service area and its cooperative relationship with the Bell Shelter and mitigate for the acquisition of the center. The existing center shall not be demolished until the facility has been relocated and is operational.	Caltrans (Right of Way Agent)	During final design		

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C-5	Prior to construction, appropriate signage will be developed and displayed by Caltrans to direct both pedestrian and vehicular traffic to businesses via alternate routes.	Caltrans (Resident Engineer; District Traffic Manager)	Prior to construction		
C-6	To address disproportionate adverse noise impacts to environmental justice populations, interior noise abatement or other similar noise abatement/attenuation measures will be provided for impacted receptors located in areas of environmental justice populations where noise barriers have been deemed acoustically not feasible. The design goal for these abatement measures is to reduce interior noise levels below 52 A-weighted decibels (dBA). If Alternative 5C is selected as the preferred alternative, the impacted receptors within the following targeted areas would receive interior noise abatement: ▪ Along westbound Wardlow Rd. from I-710 to Delta Ave.; and ▪ Along the edge of shoulder along the southbound I-710 off-ramp at Eastern Ave. If Alternative 7 is selected as the preferred alternative, the following targeted areas would receive interior noise abatement: ▪ Along westbound Wardlow Rd. from I-710 to Delta Ave.; and ▪ East of the Los Angeles River, along the northbound freight corridor between State Route 91 (SR-91) to Rosecrans Ave.	I-710 Funding Partner Agencies/ Gateway Cities Council of Governments (GCCOG); Caltrans (Environmental Generalist; Environmental Construction Liaison)	Prior to construction		
C-7	To address disproportionate impacts to environmental justice populations with regards to air quality, traffic, visual impacts, and land use/parks and recreation, funding will be provided to local jurisdictions for targeted improvements that would improve air quality and public health, reduce traffic congestion, provide aesthetic/visual enhancements, and improve parks and recreation. These improvements must be made within the United States Census Bureau census tracts adjacent to the I-710 freeway that have been identified as having a high percentage of minority and/or low income populations compared to the County of Los Angeles. These targeted improvements may include, but are not limited to, air filtration systems installation or upgrade, urban art installations	I-710 Funding Partner Agencies/ Gateway Cities Council of Governments (GCCOG); Caltrans (Environmental Generalist; Environmental Construction Liaison)	At the start of construction within the limits of a given jurisdiction		

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	and community events, landscaping, traffic calming measures, pedestrian/bicycle enhancement measures, and development of pocket parks or other park space. Funding for these targeted improvements will be made in the amount of up to 1 percent of the capital construction cost for either of the build alternatives. This funding will be provided through a funding agreement between the Los Angeles County Metropolitan Transportation Authority (Metro), Caltrans, and the affected local jurisdiction upon the commencement of construction within the limits of that local jurisdiction (in the event of staged construction).				
C-8	In order to minimize human exposure to pollutants, upgraded or new filtration or heating, ventilation, and air conditioning (HVAC) systems will be provided for the following sensitive receptors that have been identified as falling within an area of pollutant increase under either of the build alternatives. If Alternative 5C is selected as the preferred alternative, the following facilities would receive upgraded or new filtration or HVAC systems: ▪ Inclusion Specialized Programs LLC, Agra Ave., Bell Gardens ▪ Marlow Park Child Development Center, Bell Gardens ▪ Humphreys Elementary School, East Los Angeles If Alternative 7 is selected as the preferred alternative, the following facilities would receive upgraded or new filtration or HVAC systems: ▪ YMCA GLB First Friendships State Preschool, Long Beach ▪ St. John's School, Long Beach ▪ RMR Residential Care Facilities, DeForest Ave., Long Beach ▪ Vista High School, Wright Rd., Lynwood ▪ Bell Gardens Elementary School, Bell Gardens ▪ Briarcrest Nursing Center Nursing Home, Bell Gardens ▪ Marlow Park Child Development Center, Bell Gardens ▪ Inclusion Specialized Programs LLC, Agra Ave., Bell Gardens ▪ Humphreys Elementary School, East Los Angeles	I-710 Funding Partner Agencies/ Gateway Cities Council of Governments (GCCOG); Caltrans (Environmental Generalist; Environmental Construction Liaison)	Prior to construction		

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UTILITIES AND EMERGENCY SERVICES					
U&ES-1	**Fire, Law Enforcement, Emergency Services and School Districts.** During final design, and consistent with the requirements of the Federal Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (Uniform Act), the California Department of Transportation (Caltrans) shall negotiate with the City of Vernon to determine a suitable location for the relocation of Fire Station No. 4. The new location shall be in the general vicinity of the existing fire station location, in order to maintain response times with Fire Station No. 4's service area. The existing Fire Station No. 4 shall not be closed until the new fire station has been constructed and is operational.	Caltrans (Right of Way Agent)	During final design		
U&ES-2	**Utilities.** Utility relocations (classified as both major and minor) would be subject to preparation of Specific Utility Relocation Plans. The Specific Utility Relocation Plans would include the following: ▪ Description of existing facilities, including facility type, capacity, height, and function, in addition to existing easements and maintenance access. ▪ Description of proposed changes/demolition of existing facilities. ▪ Identification of potential conflicts that need to be resolved with the relocation plan, including crossings of flood control, rail, and roadway/freeway infrastructure, existing access tunnels, potential flooding, existing utilities and load distribution, Federal Aviation Administration requirements, drainage and stormwater quality requirements, and temporary roads and staged construction. ▪ A description of how the potential conflicts were resolved, including how the proposed relocated aboveground facilities are within the disturbance limits established for the project, whether new overhead facilities provide adequate aerial clearances in locations where cranes would be working and near existing and proposed elevated transportation facilities, and whether all aboveground facilities and access points to	Caltrans (Resident Engineer); Utilities	During final design		

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	underground facilities are located outside controlled access lines. ▪ A description of the proposed facilities, including easements and maintenance access, and a description of vertical and/or horizontal clearance from other utility and public infrastructure. ▪ A work plan that describes the nature of the construction activity, haul routes, a construction traffic management plan if warranted, hours of construction, construction duration and schedule, planned service interruptions, if any, types of construction activities, and anticipated noise levels. ▪ A summary of existing and planned Utility Team Coordination Meetings that would include all utility companies and local jurisdictions' Departments of Public Works affected by the project. The meetings should occur during the final design phase (beginning at the 30 percent design stage) _and include final design and construction staging. The meeting participants would discuss and plan a workable sequence of utility alterations so that the utility work can be coordinated and, where possible, completed in advance of highway work. Topics to be addressed include sensitive environmental areas, hazardous material sites, erosion controls during construction, and any community events that would be occurring during construction and need to be accommodated. ▪ A determination whether a community meeting would be held prior to the issuance of demolition and grading permits. Community meetings will be held for major utility relocations that are (1) within 500 feet of residences or schools, and (2) that would require construction duration of 30 days or more. Caltrans shall hold a community preconstruction meeting, in concert with the construction contractor, to provide information regarding the construction schedule and activities. The construction information shall include the location and duration of each construction activity, whether or				

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	not and, if applicable, the specific location, days, frequency, and duration of the pile driving that would occur, construction traffic management plans, and any accommodation of community events that would be occurring during the construction period. Notification of this meeting shall be provided to owners and occupants within 500 feet of the utility relocation site. ▪ The Specific Utility Relocation Plans will also include other applicable mitigation measures described in this Recirculated Draft Environmental Impact Report/Supplemental Draft Environmental Impact Statement (RDEIR/SDEIS), for impacts related to cultural resources, visual resources, hazardous wastes, water quality, and traffic and transportation.				
TRAFFIC AND TRANSPORTATION/PEDESTRIAN AND BICYCLE FACILITIES					
TR-1[1]	The following improvements to address project impacts to arterial intersections will be implemented: **CITY OF BELL GARDENS.** ▪ **FLORENCE AVE./EASTERN AVE.:** Add an extra left-turn lane on the eastbound (triple-left) approach. Add a separate right-turn lane on the westbound approach. Implement overlap phase for eastbound right-turn movement. **CITY OF BELL GARDENS/CITY OF COMMERCE.** ▪ **GARFIELD AVE./GAGE AVE.:** Add separate right-turn lanes on both the eastbound and westbound approaches. **CITY OF CARSON/COUNTY OF LOS ANGELES.** ▪ **DEL AMO BLVD./SANTA FE AVE.:** Add a separate right-turn lane on the eastbound approach. Add an extra left-turn lane (dual left) on the southbound approach. **CITY OF COMMERCE.** ▪ **SLAUSON AVE./EASTERN AVE.:** Add a separate right-turn lane on the eastbound approach. The improvement at this intersection pertains to Alternative 7 only.	Caltrans Project Design Engineer, Traffic Engineer, and Project Management, in partnership with Metro and affected cities	Before completion of construction of the I-710 mainline improvements		

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	▪ **SLAUSON AVE./GARFIELD AVE.:** Convert the eastbound right-turn lane to a shared through/right-turn lane. The improvement at this intersection pertains to Alternative 5C only. **CITY OF COMPTON.** ▪ **ROSECRANS AVE./ATLANTIC AVE.:** Add a separate right-turn lane on the westbound approach. ▪ **ARTESIA BLVD./SANTA FE AVE.:** Convert the eastbound right-turn lane into shared through/right-turn lane. Add an extra right-turn lane on the eastbound approach. The improvement at this intersection pertains to Alternatives 5C only. **CITY OF HUNTINGTON PARK.** ▪ **SLAUSON AVE./ALAMEDA ST. (WEST):** Add a separate right-turn lane on the southbound approach. The improvements at this intersection pertain to Alternative 7 only. ▪ **SLAUSON AVE./SANTA FE AVE.:** Add a separate right-turn lane on the northbound approach. The improvements at this intersection pertain to Alternative 7 only. ▪ **SLAUSON AVE./BOYLE AVE.:** Add a separate right-turn lane on the eastbound approach. **CITY OF LONG BEACH.** ▪ **ANAHEIM ST./SANTA FE AVE.:** Convert separate southbound right-turn lane to a shared through/right-turn lane. Add an extra left-turn lane to the southbound approach. ▪ **PACIFIC COAST HWY./SANTA FE AVE.:** Convert westbound right-turn lane to a shared through/right-turn lane. Convert eastbound right-turn lane to a shared through/right-turn lane. ▪ **WILLOW ST./SANTA FE AVE.:** Add a separate right-turn lane on the westbound approach. The improvement at this intersection pertains to Alternative 5C only. ▪ **DEL AMO BLVD./LONG BEACH BLVD.:** Add an extra left-turn lane on both southbound and northbound approaches.				

No.	Avoidance, Minimization, and Mitigation Measures	Responsible Party	Timing/Phase	Action Taken to Comply with Avoidance, Minimization, and Mitigation Measures	Date
	▪ **DEL AMO BLVD./ATLANTIC AVE.:** Add an extra left-turn lane on northbound approach. The improvement at this intersection pertains to Alternative 5C only. ▪ **ARTESIA BLVD./LONG BEACH BLVD.:** Add a separate right-turn lane on the southbound approach. The improvement at this intersection pertains to Alternative 5C only. ▪ **I-710 NORTHBOUND/ARTESIA BLVD. (OFF):** Add an extra right-turn lane on the northbound approach. ▪ **3RD ST./MAGNOLIA AVE.:** Add a separate right-turn lane on the southbound approach. ▪ **ANAHEIM ST./CANAL AVE.:** Implement Access Management: prohibit left- and through- movements on both the northbound and southbound approaches during the AM, midday, and PM peak hours. ▪ **ATLANTIC AVE./ARTESIA BLVD.:** Add a separate left-turn lane on the westbound approach. The improvement at this intersection pertains to Alternative 5C only. ▪ **ARTESIA BLVD./CHERRY AVE.:** Convert the eastbound right-turn lane into a shared through/right-turn lane. The improvement at this intersection pertains to Alternative 5C only. ▪ **LONG BEACH BLVD./VICTORIA ST.:** Convert the eastbound shared through/left-turn lane (middle lane) to a shared through/right-turn lane. ▪ **WILLOW ST./EASY ST.:** Add a separate left-turn lane on the southbound approach. Convert the eastbound right-turn lane to a shared through/right-turn lane. **CITY OF LOS ANGELES (WILMINGTON).** ▪ **ANAHEIM ST./ALAMEDA ST.:** Implement protected phase for eastbound left-turn movement. The improvement at this intersection pertains to Alternative 7 only. **COUNTY OF LOS ANGELES (UNINCORPORATED EAST LOS ANGELES).** ▪ **INDIANA ST./OLYMPIC BLVD.:** Convert both the northbound and southbound approaches to provide a separate left-turn lane and a shared through/right-turn lane.				

No.	Avoidance, Minimization, and Mitigation Measures	Responsible Party	Timing/Phase	Action Taken to Comply with Avoidance, Minimization, and Mitigation Measures	Date
	▪ **I-710 NORTHBOUND/OLYMPIC BLVD. (OFF):** Add a separate right-turn lane on the northbound approach (Alternative 5C Design Option 3A and Alternative 7 Design Option 3B only). ▪ **FORD BLVD./WHITTIER BLVD.:** Convert both the northbound and southbound approaches to provide a separate left-turn lane and a shared through/right-turn lane. ▪ **FORD BLVD./3RD ST.:** Add a separate right-turn lane on the northbound approach. (Alternative 7 and Alternative 5C Design Option 3A only). ▪ **3RD ST./GAGE AVE.:** Add separate right-turn lanes on both the eastbound and westbound approaches. **CITY OF LYNWOOD.** ▪ **IMPERIAL HWY./ATLANTIC AVE.:** Add an extra left-turn lane on the eastbound approach resulting in triple left-turn lanes. **CITY OF PARAMOUNT.** ▪ **ROSECRANS AVE./GARFIELD AVE.:** Add an extra left-turn lane on the eastbound approach. The improvement at this intersection pertains to Alternative 5C only. ▪ **ROSECRANS AVE./PARAMOUNT BLVD.:** Add an extra left-turn lane on the eastbound approach. The improvement at this intersection pertains to Alternative 5C only. **CITY OF SOUTH GATE.** ▪ **FIRESTONE BLVD./ATLANTIC AVE.:** Add separate right-turn lanes on both the eastbound and westbound approaches. ▪ **FIRESTONE BLVD./GARFIELD AVE.:** Add an extra left-turn lane on the eastbound approach. The improvement at this intersection pertains to Alternative 5C only. ▪ **GARFIELD AVE./SOUTHERN AVE.:** Add an extra left-turn lane on the northbound, southbound and eastbound approaches.				

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	CITY OF VERNON. ▪ **BANDINI BLVD./ATLANTIC BLVD.:** Add an extra right-turn lane on the southbound approach. ▪ **BANDINI BLVD./PENNINGTON WAY:** Implement overlap phase for northbound right-, southbound right-, and westbound right-turn movements. The improvement at this intersection pertains to Alternative 5C only. ▪ **WASHINGTON BLVD./DOWNEY RD.:** Add an extra left-turn lane on both the northbound and southbound approaches. The improvement at this intersection pertains to Alternative 7 only.				
VISUAL AND AESTHETICS					
VIS-1[1]	Elements from the California Department of Transportation (Caltrans) *I-710 Corridor Aesthetic Master Plan* (2014) will be incorporated into the final design of the Interstate 710 (I-710) Corridor Project. The *I-710 Corridor Aesthetic Master Plan* defines aesthetic treatment measures to be incorporated into the final design of the Interstate 710 (I-710) Corridor Project. The *I-710 Corridor Aesthetic Master Plan* has been developed in a context-sensitive design process in consultation with the affected local agencies and includes involvement of local community members as determined by the local agencies. The following are the aesthetic structure design considerations of the *I-710 Corridor Aesthetic Master Plan* (2014) that will be incorporated into the design of the I-710 Corridor Project: ▪ Provision of visual continuity and a unified experience for the driver, from the coastal City of Long Beach to the community of East Los Angeles to the north. ▪ Bridge concrete barriers and railing shall contribute to the visual continuity of the travel way. ▪ Selection of a distinctive light standard design that is compatible with the lines and shapes of the proposed aesthetic theme for structures and that reflects an artistic	Caltrans (Landscape Architect)	During final design		

No.	Avoidance, Minimization, and Mitigation Measures	Responsible Party	Timing/Phase	Action Taken to Comply with Avoidance, Minimization, and Mitigation Measures	Date
	solution for pole lighting. ▪ Travel way appurtenances shall exhibit simple design language that unifies various travel way components (e.g., bridge rails, abutments and security fencing). ▪ The form and surfacing of all vertical elements such as abutments, bridge superstructures, columns, retaining walls, and soundwalls along the travel way, shall exhibit a consistent aesthetic treatment and style. The *I-710 Corridor Aesthetic Master Plan* determined that the "Modern Theme" will serve as the concept for the I-710 Corridor. Conceptual representations of the "Modern Theme" for all structural elements are portrayed in the *I-710 Corridor Aesthetic Master Plan* (2014).				
VIS-2[1]	**Trees.** During preparation of plans, specifications, and estimates (PS&E), the Caltrans District 7 Landscape Architect will verify that the design minimizes removal of existing mature trees. If removal of mature trees cannot be avoided, additional landscape improvements will be incorporated into the final design for these areas. The replacement ratio of any trees removed shall be determined by the Caltrans District 7 Landscape Architect. Consistent with Caltrans' policy, the objective of this measure is to maximize the number of new trees, shrubs, and foliage within proposed State right of way that are drought resistant and have superior biosequestration and biofiltration capabilities, in an effort to surpass the minimum tree removal/replacement ratio. Depending on the types of trees removed, removal and replacement ratios differ, but will be included in the final landscaping plan.	Caltrans (Landscape Architect)	During preparation of PS&E		
VIS-3[1]	**Hardscape.** During preparation of PS&E, the Caltrans District 7 Landscape Architect will verify that the project design incorporates attractive walls, medians, and other visually pleasing hardscape in the project design consistent with the *I-710 Corridor Aesthetic Master Plan*. Permeable paving material will be used to reduce surface water runoff.	Caltrans (Project Engineer; Landscape Architect)	During preparation of PS&E		

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VIS-4[1]	**Sound Walls.** During preparation of PS&E, Caltrans will include aesthetic enhancements for soundwalls in the final design**.** The designs of soundwalls require compliance with Caltrans standards for sound attenuation (where walls provide that function), safety requirements, and other pertinent standards. The design of soundwalls requires compliance with the Caltrans *Highway Design Manual* standards, and aesthetic treatments shall be reviewed by the Caltrans District 7 Landscape Architect. The soundwalls shall be developed consistent with the *I-710 Corridor Aesthetic Master Plan* and include the following features: ▪ Attractive, decorative elements including features that provide an expression of the "sense of place" for the I-710 Corridor communities shall be incorporated into wall designs in order to increase the visual quality of the area. ▪ Areas in front of soundwalls shall be landscaped, where landscaping can be accommodated within the public right of way, including trees, shrubs, and vines (depending upon the space available) to break the visual monotony, soften the appearance of soundwalls, and deter graffiti.	Caltrans (Project Design Engineer; Landscape Architect)	During preparation of PS&E		
VIS-5[1]	**Retaining Walls.** During preparation of PS&E, Caltrans will include aesthetic enhancements for retaining walls in the project design. Attractive, decorative elements, including features that provide an expression of the "sense of place" for the I-710 Corridor communities, shall be incorporated into wall designs in order to increase the visual quality of the area. The use of retaining walls along the I-710 freeway mainline or at interchange off- and on-ramps will require compliance with Caltrans' design standards for safety.	Caltrans (Project Design Engineer; Landscape Architect)	During preparation of PS&E		

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VIS-6[1]	**Screen Walls.** As discussed in the Project Description, Caltrans will include screen walls along the freight corridor in areas where soundwalls are not provided and where sensitive viewer groups are exposed to the view of the freight corridor. During preparation of PS&E, aesthetic enhancements for screen walls in the project design will include attractive, decorative elements that provide an expression of the "sense of place" for the I-710 Corridor communities.	Caltrans (Project Design Engineer; Landscape Architect)	During preparation of PS&E		
VIS-7[1]	**Lighting.** During preparation of PS&E, a lighting plan will be prepared by Caltrans. The lighting fixtures will be designed to minimize glare on adjacent properties and into the night sky. Lighting will be shielded with nonglare hoods and focused within the I-710 Corridor Project right of way.	Caltrans (Project Design Engineer)	During preparation of PS&E		
VIS-8[1]	**Detention Basins and Bioswales.** During preparation of PS&E, detention basins and bioswales will be addressed as visually integrated elements of the landscape planting. An *Enhanced Water Quality Features Report for the I-710 Corridor Project* (December 2016) has been developed. The proposed Enhanced Water Quality Features will clean the water while simultaneously adding aesthetic features to the area. A common theme will be implemented in the design to help add character, beauty, and unity to the surrounding cities that all share the same responsibility and waterways.	Caltrans (Project Design Engineer; Stormwater Design)	During preparation of PS&E		
VIS-9[1]	**Local Jurisdiction Review.** During final design, Caltrans will review with each local jurisdiction the aesthetic features and treatments proposed to be incorporated in the final facility design for freeway components adjacent to each local jurisdiction, in accordance with the I-710 Corridor Aesthetic Master Plan described in Measure VIS-1.	Caltrans (Project Design Engineer; Landscape Architect)	During final design		
VIS-10[1]	**Graffiti Reduction, Removal, and Control.** During final design, Caltrans will include planting plans for vine planting on sound barriers and other vertical structures, planting plans for trees and shrubs in State right of way adjacent to south barriers and other vertical structures, and the use of decorative/surface treatments on sound barriers and other vertical structures in the *I-710 Corridor Aesthetic Master Plan*, to reduce the potential for graffiti and to soften the appearance of those walls, consistent with the *Highway*	Caltrans (Project Design Engineer; Landscape Architect)	During final design		

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	Design Manual, Index 902.3(5). After the construction of each sound barrier or vertical structure where vine planting is shown in the project specifications, Caltrans will require the construction contractor to install the vine planting consistent with the project specifications and the planting requirements in the *I-710 Corridor Aesthetic Master Plan*. Caltrans has an existing ongoing maintenance program for the control and removal of graffiti from structures and facilities within the State right of way for State highways. That program would apply to all new and modified structures in the I-710 Corridor Project build alternatives. The Caltrans program for the control and removal of graffiti is described in Chapter D1, Litter, Debris, and Graffiti, in the Caltrans *Maintenance Manual,* Volume I (July 2014). Key program components applicable to the project features in the I-710 Corridor Project build alternatives include: ▪ Use of recycled paint for various structures and matching paint used to cover graffiti with the original paint color on the structure. ▪ Use of physical devices such as rat guards, sign hoods, razor wire, and glare screen patches to limit access to facilities targeted by taggers. ▪ Replacement of ground-mounted signs with signs that have protective coatings or application of protective coatings to signs. ▪ Evaluation and use of new products available to aid in control of graffiti, for both preventative and removal of graffiti. Caltrans maintains a list of products that have been tested for safety and effectiveness. ▪ Multi-Agency Graffiti Intervention Committees (MAGIC) are regional anti-graffiti organizations. They are effective in coordination of regional resources and efforts from local agencies.				

No.	Avoidance, Minimization, and Mitigation Measures	Responsible Party	Timing/Phase	Action Taken to Comply with Avoidance, Minimization, and Mitigation Measures	Date
	Many local jurisdictions along the alignment of I-710 also have graffiti abatement and control programs in their Municipal Codes or other City or County requirements. Those programs apply throughout those jurisdictions and may apply to structures on public and private property. Methods used by local agencies for the removal of graffiti include power washing, gel removers, and painting.				
HYDROLOGY AND FLOODPLAINS					
FP-1	During final project design, and prior to the issuance of any grading permits, the California Department of Transportation (Caltrans) shall process a Conditional Letter of Map Revision and a Letter of Map Revision, if required, for the floodplain and floodway encroachments through the Los Angeles County Flood Control District (LACFCD) and Federal Emergency Management Agency (FEMA). This shall include submittal of final detailed applications, certification forms, hydraulic analyses (i.e., Final Flood Control Facilities Report, including a Location Hydraulic Study), and fee payment to FEMA to obtain a Conditional Letter of Map Revision and a Letter of Map Revision. The portion of the project within the 100-year floodplain shall not be constructed until the Letter of Map Revision is approved by the LACFCD and FEMA.	Caltrans (Project Design Engineer; Stormwater)	During final project design and prior to the issuance of any grading permits		
FP-2[1]	Prior to the completion of final design of Alternative 7, Caltrans shall coordinate with the Los Angeles County Department of Public Works and the LACFCD to identify a suitable location for replacement of the Lynwood Retention Basin and the Dominguez Gap Spreading Grounds that will provide equal or greater capacity than the facilities impacted by the freight corridor. Caltrans will consult with the LACFCD and affected local agencies to verify that the basin replacements will continue to meet water quality goals including those established for the Los Angeles River Metals Total Maximum Daily Load.	Caltrans (Project Design Engineer)	Prior to the completion of final design of Alternative 7		

No.	Avoidance, Minimization, and Mitigation Measures	Responsible Party	Timing/Phase	Action Taken to Comply with Avoidance, Minimization, and Mitigation Measures	Date
WATER QUALITY AND STORMWATER RUNOFF					
WQ-1	The California Department of Transportation (Caltrans) shall comply with provisions identified in the National Pollutant Discharge Elimination System (NPDES) Permit, Statewide Stormwater Permit and Waste Discharge Requirements (WDRs) Order No. 2012-0006-DWQ, NPDES No. CAS000002, or subsequent permit of the Construction General Permit (CGP). An effective Storm Water Pollution Prevention Plan (SWPPP) shall be developed and implemented. During final design, Caltrans will consult with the jurisdictions where discharges of runoff from Interstate 710 (I-710) to local jurisdictions' streets and/or stormwater drainage systems will occur during the project design development, treatment, and operational Best Management Practices (BMPs) in those local jurisdictions.	Caltrans (Project Design Engineer; SWPPP)	During final design		
WQ-2	Caltrans shall follow the procedures outlined in the Caltrans Stormwater Quality Handbooks, Project Planning and Design Guide for implementing design pollution prevention and treatment BMPs including Low Impact Development (LIDs), for the project. Caltrans-approved treatment BMPs shall be implemented to the Maximum Extent Practicable (MEP), consistent with the requirements of the Statewide Storm Water Permit, Order No. 2012-0011-DWQ, NPDES No. CAS000003, and WDRs for Caltrans' properties, facilities, and activities, and any required MS4 Permits. This will include coordination with the Los Angeles Regional Water Quality Control Board (LARWQCB) with respect to feasibility, maintenance, and monitoring of Treatment BMPs as set forth in the Caltrans Storm Water Management Plan (SWMP).	Caltrans (Project Design Engineer; SWPPP)	During final design		
WQ-3	Caltrans shall require the construction contractor to comply with the provisions of the Waste Discharge Requirements for Discharges of Groundwater from Construction and Project Dewatering to Surface Waters in Coastal Watersheds of Los Angeles and Ventura Counties, Order No. R4-2013-0095, NPDES No. CAG994004, as they relate to discharge of non-stormwater dewatering wastes for the project, including monitoring and reporting requirements.	Caltrans (Resident Engineer; Project Design Engineer; SWPPP)	During construction		

No.	Avoidance, Minimization, and Mitigation Measures	Responsible Party	Timing/Phase	Action Taken to Comply with Avoidance, Minimization, and Mitigation Measures	Date
GEOLOGY, SOILS, SEISMIC, AND TOPOGRAPHY					
GEO-1[1]	Prior to completion of final design, the California Department of Transportation (Caltrans) will prepare a design-level geotechnical report in accordance with the *Guidelines for Preparing Geotechnical Design Reports* (Caltrans 2006). Design-level geotechnical reports precede development of grading and/or construction plans, and they provide detailed, site-specific design recommendations. Studies at this stage shall provide specific design recommendations to mitigate geologic hazards as they relate to grading and construction of the project. A geotechnical design report will document soil-related constraints and hazards such as slope instability, settlement liquefaction, or related secondary seismic impacts that may be present. The report shall also include: ▪ Evaluation of expansive soils and recommendations regarding construction procedures and/or design criteria to minimize the effect of these soils on development of the project. ▪ Identification of potential liquefiable areas within the project limits and recommendations for mitigation. ▪ Demonstration that the design of all proposed retaining walls is geotechnically suitable for project area soils. The Caltrans Project Engineer will incorporate the measures recommended in the design level geotechnical report in the final design and project specifications. The Caltrans Resident Engineer will require the construction contractor to implement the measures recommended in the design-level geotechnical report as included in the project specifications.	Caltrans (Project Design Engineer; Geotechnical Engineer)	Prior to completion of final design		

No.	Avoidance, Minimization, and Mitigation Measures	Responsible Party	Timing/Phase	Action Taken to Comply with Avoidance, Minimization, and Mitigation Measures	Date
PALEONTOLOGY					
PAL-1[1]	Concurrently with development of the final design, a qualified Principal Paleontologist shall prepare a Paleontological Mitigation Plan (PMP) following the guidelines of the California Department of Transportation (Caltrans) and the Society of Vertebrate Paleontology. The PMP will provide a description of the project, describe the geologic units in the project area and their paleontological sensitivities, describe the scope of work, determine decision thresholds, provide cost estimates and schedules, identify and establish a draft curation agreement with an appropriate museum repository, and include the following measures: ▪ A preconstruction field survey shall be conducted in areas identified as having high paleontological sensitivity after vegetation and paving have been removed, followed by salvage of any observed surface paleontological resources prior to the beginning of additional grading. ▪ A qualified Principal Paleontologist or representative shall attend the preconstruction meeting. At this meeting, the Principal Paleontologist will explain the likelihood for encountering paleontological resources, what resources may be discovered, and the methods of recovery that will be employed. ▪ During construction excavation, a qualified vertebrate paleontological monitor shall initially be present on a full-time basis whenever excavation will occur within the sediments that have a high paleontological sensitivity rating and on a spot-check basis for excavation in sediments that have a low sensitivity rating. Monitoring may be reduced to a part-time basis if no resources are being discovered in sediments with a high sensitivity rating (monitoring reductions, when they occur, will be determined by the qualified Principal Paleontologist in consultation with the Caltrans Resident Engineer [RE]). The monitor shall inspect fresh cuts and/or spoils piles to recover paleontological resources. With the RE's approval, the monitor shall temporarily divert construction equipment away from the	Caltrans (Paleontologist)	During final design		

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	immediate area of the discovery. The monitor shall be equipped to rapidly stabilize and remove fossils to avoid prolonged delays to construction schedules. If large mammal fossils or large concentrations of fossils are encountered, Caltrans shall consider using heavy equipment on site to assist in the removal and collection of large materials. ▪ Localized concentrations of small (or micro-) vertebrates may be found in all native sediments. Therefore, these sediments occasionally spot-screened on site through one-eighth- to one-twentieth-inch mesh screens determines whether microfossils are present during monitoring. If microfossils are encountered, sediment samples (up to three cubic yards or 6,000 pounds) shall be collected and processed through one-twentieth-inch mesh screens to recover additional fossils. ▪ Recovered specimens shall be prepared to the point of identification and permanent preservation. Preparation includes the sorting of any washed mass samples to recover small invertebrate and vertebrate fossils, the removal of surplus sediment from around larger specimens to reduce the volume of storage for the repository and storage cost, and the addition of approved chemical hardeners/stabilizers to fragile specimens. ▪ Specimens shall be identified to the lowest taxonomic level possible and curated into an institutional repository with retrievable storage. The repository institution usually charges a one-time fee based on volume, so removing surplus sediment is important. The repository institution may be a local museum or university with a curator who can retrieve the specimens on request. Caltrans requires that a draft curation agreement be in place with an approved curation facility prior to the initiation of any paleontological monitoring or mitigation activities. ▪ A Paleontological Mitigation Report (PMR) documenting completion of the monitoring program for the Lead Agency (Caltrans) shall be prepared and submitted.				

No.	Avoidance, Minimization, and Mitigation Measures	Responsible Party	Timing/Phase	Action Taken to Comply with Avoidance, Minimization, and Mitigation Measures	Date
HAZARDOUS WASTE AND MATERIALS					
HW-1[1]	Prior to completion of acquisition of any property with existing buildings, a predemolition survey for asbestos-containing material (ACM) and lead-based paint (LBP) will be conducted. If ACMs and/or LBP are detected, a licensed contractor will remove the ACMs and/or LBP materials prior to demolition.	Will be defined by Cooperative Agreement between Metro and Caltrans	Prior to completion of acquisition of any property with existing buildings		
HW-2[1]	During preparation of Plans, Specifications, and Estimates, utility pole-mounted transformers within the project area will be inspected for leaks. Leaking transformers will be considered a polychlorinated biphenyl (PCB) hazard unless tested and will be handled accordingly.	Will be defined by Cooperative Agreement between Metro and Caltrans	During preparation of PS & E		
HW-3[1]	Prior to soil excavation, a soil investigation for aerially deposited lead (ADL) and other contaminants of concern will be conducted. The analytical results of the soil sampling will assess the potential presence of hazardous contaminants and determine the appropriate handling of the soil and disposal of surplus materials. The soil investigation will consist of an ADL investigation (along Interstate 710 [I-710]) and investigation for other contaminants of concern due to impacts from adjoining properties. Ultimately, soil investigation and soils sampling will be conducted as defined in the Cooperative Agreement between the Los Angeles County Metropolitan Transportation Authority (Metro) and the California Department of Transportation (Caltrans).	Will be defined by Cooperative Agreement between Metro and Caltrans	Prior to soil excavation		
HW-4[1]	During preparation of Plans, Specifications, and Estimates, a groundwater evaluation will be conducted to assess disposal alternatives for groundwater encountered during construction and to comply with the requirements of the National Pollutant Discharge Elimination System (NPDES) permitting process.	Will be defined by Cooperative Agreement between Metro and Caltrans	During preparation of PS & E		
HW-5[1]	During preparation of Plans, Specifications, and Estimates, soils within and immediately adjacent to existing railroads that will disturbed as part of the railroad relocation under the I-710 Corridor Project, will be tested for contaminants commonly found in association with railroads. The soil investigation will include, but not be limited to the following constituents, total petroleum hydrocarbons, lead, and arsenic.	Will be defined by Cooperative Agreement between Metro and Caltrans	During preparation of PS & E		

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HW-6[1]	During the Plans, Specifications, and Estimates phase, a Construction Contingency Plan (CCP) in accordance with Caltrans' Unknown Hazards Procedures for Construction will be prepared. The CCP will include provisions for emergency response in the event that unidentified underground storage tanks (USTs), hazardous materials, petroleum hydrocarbons, or hazardous or solid wastes are discovered during construction activities. The CCP will address UST decommissioning, field screening, contaminant materials testing methods, mitigation and contaminant management requirements, and health and safety requirements for construction workers. The CCP is required to be implemented during all construction activities. During construction, work will cease immediately if an unexpected release of hazardous substances is found in reportable quantities. If an unexpected release of hazardous substances is found in reportable quantities, the National Response Center will be notified by calling 1-800-424-8802. Cleanup of unexpected releases under the appropriate Federal, State, or local agency oversight will be required.	Will be defined by Cooperative Agreement between Metro and Caltrans	During the PS & E phase		
HW-7[1]	During final design, prior to any ground disturbance, all treated wood waste will be properly disposed of, in accordance with Alternative Management Standards for Treated Wood Waste in Section 67386.6(a)(2)(B) 3 of the California Code of Regulations (CCR). In addition, any personnel who come in contact with treated wood waste or contaminated soils will be required to follow all applicable requirements under Section 67386.6(a)(2)(B) 3 of the CCR and be trained in the proper identification, disposal, and safe handling of treated wood waste and contaminated soils.	Will be defined by Cooperative Agreement between Metro and Caltrans	During final design prior to any ground disturbance During construction		

No.	Avoidance, Minimization, and Mitigation Measures	Responsible Party	Timing/Phase	Action Taken to Comply with Avoidance, Minimization, and Mitigation Measures	Date
AIR QUALITY					
AQ-1	Within two years of the approval of a Record of Decision for an Interstate 710 (I-710) Corridor Project build alternative, a funding contribution shall be made to the South Coast Air Quality Management District (SCAQMD) to provide funding for the design and construction of four new air quality monitoring stations within the I-710 Corridor. The new stations will provide for monitoring meteorology (temperature, relative humidity, pressure, wind speed and direction, and rain) and monitoring the following pollutants: ozone (O_3), nitrogen oxide (NO), nitrogen dioxide (NO_2), particulate matter less than 2.5 microns in diameter ($PM_{2.5}$), particulate matter less than 10 microns in diameter (PM_{10}), and carbon monoxide (CO).	I-710 Funding Partner Agencies/ Gateway Cities Council of Governments (GCCOG); Caltrans (Environmental Generalist; Environmental Construction Liaison)	Within two years of the approval of a Record of Decision for an I-710 Corridor Project build alternative		
AQ-2	To further reduce exposure of children and other people to near roadway emissions, air filtration systems shall be provided for any of the following schools within 0.25 mile of I-710 that currently lack adequate air filtration systems. As stated in the California Air Resources Board (ARB) *Technical Advisory* (April 2017), high efficiency filters in ventilation systems can remove from 50 to 99 percent of the particles in the air. Determination of adequate air filtration systems will be addressed during coordination with the respective school districts or administrations and based on current building codes as well as guidelines set forth by the United States Environmental Protection Agency (EPA) and the SCAQMD. ▪ Al Hadi Elementary ▪ Bandini Elementary ▪ Bell Gardens Elementary ▪ Bell Gardens Intermediate ▪ Birney Elementary ▪ Chavez Elementary ▪ Children's Collective Inc. - Casa Dominguez ▪ "Children ""R"" Us" Compton ▪ "Children ""R"" Us" Rancho Dominguez ▪ Clinton Elementary ▪ Dorothy Kirby Camp	I-710 Funding Partner Agencies/ Gateway Cities Council of Governments (GCCOG); Caltrans (Environmental Generalist; Environmental Construction Liaison)	During Construction		

No.	Avoidance, Minimization, and Mitigation Measures	Responsible Party	Timing/Phase	Action Taken to Comply with Avoidance, Minimization, and Mitigation Measures	Date
	▪ Edison Elementary ▪ Educational Partnership High ▪ El Camino College Compton Center ▪ Ellen Ochoa Learning Center ▪ Firebaugh High ▪ Ford Boulevard Elementary ▪ Garfield Elementary ▪ Hamilton Middle ▪ Heliotrope Avenue Elementary ▪ Heritage Christian School ▪ Humphrey Avenue Elementary ▪ Jordan Academy ▪ Jordan High ▪ Kelly Elementary ▪ King Elementary ▪ Lindsey Academy ▪ Long Beach School For Adults ▪ Long Beach Unified Selpa ▪ Los Cerritos Elementary ▪ Lugo Elementary ▪ Maywood Elementary ▪ Muir Elementary ▪ Pacific Baptist School ▪ Park Avenue Elementary ▪ Powell Academy ▪ Slawson Southeast Occupational Center ▪ St. Lucy Elementary ▪ Vista Continuation High ▪ Vista High ▪ Washington Middle ▪ Whaley Middle School				

No.	Avoidance, Minimization, and Mitigation Measures	Responsible Party	Timing/Phase	Action Taken to Comply with Avoidance, Minimization, and Mitigation Measures	Date
AQ-3	**Traffic Emission Dispersion Measures.** During final design, two measures will be implemented to increase dispersion of vehicular emissions and particulate matter: ▪ Provide solid barriers (walls) in areas where soundwalls are not currently proposed. As stated in the ARB Technical Advisory (April 2017), studies have found that because of the vertical dispersion provided by such barriers, pollutant concentrations downwind of barriers are reduced by 10 to 50 percent compared to locations without barriers. ▪ Provide vegetation for pollution dispersion (possibly in combination with solid barriers). As stated in the ARB *Technical Advisory* (April 2017), some studies have shown that densely planted vegetation can reduce pollutant concentrations up to 20 percent on the leeward side of a line of trees.	Caltrans (Environmental Generalist; Air Quality Specialist; Project Design Engineer)	During final design and during construction		
NOISE					
N-1	Based on the studies completed to date, the California Department of Transportation (Caltrans) intends to incorporate noise abatement in the form of soundwalls listed as reasonable in Table 3.14-3, depending on the selected alternative. During final design, Caltrans will make the final decision on noise abatement to be included in the selected build alternative, based on the final design of the proposed project and the public involvement process. If during final design, conditions have substantially changed, noise abatement at some of the locations noted above may not be necessary. Caltrans will incorporate the final noise abatement in the final project design and specifications.	Caltrans (Project Design Engineer; Noise Engineer)	During final design		

No.	Avoidance, Minimization, and Mitigation Measures	Responsible Party	Timing/Phase	Action Taken to Comply with Avoidance, Minimization, and Mitigation Measures	Date
ENERGY					
E-1	Prior to the completion of final design, the California Department of Transportation (Caltrans) shall prepare a construction efficiency plan, which will include the following: ▪ Select disposal sites as close as practicable to the Interstate 710 (I-710) construction area to minimize haul distances and excavation-related fuel consumption ▪ Reuse existing rail, steel, and lumber wherever possible, such as for falsework, shoring, and other applications during the construction process ▪ Recycle asphalt taken up from roadways, if practicable and cost-effective ▪ Using newer, more energy-efficient equipment and maintain older construction equipment in good working order ▪ Schedule construction operations to result in the most efficient use of construction equipment possible ▪ Promoting employee carpooling	Caltrans (Project Design Engineer; Environmental Generalist)	Prior to completion of final design		
E-2	Prior to the completion of project construction, Caltrans shall prepare a maintenance efficiency plan which would include the following: ▪ Maintain maintenance equipment in good working order ▪ Schedule maintenance operations to result in the most efficient use of maintenance equipment possible	Caltrans (Resident Engineer; Maintenance)	Prior to completion of construction		
E-3	Prior to completion of final design, Caltrans shall prepare an area lighting plan to identify lighting fixtures that are energy efficient and to identify placement of individual lighting fixtures used for roadway lighting that will provide safety lights for pedestrians and motorists.	Caltrans (Project Design Engineer)	Prior to completion of final design		

No.	Avoidance, Minimization, and Mitigation Measures	Responsible Party	Timing/Phase	Action Taken to Comply with Avoidance, Minimization, and Mitigation Measures	Date
NATURAL COMMUNITIES					
NC-1[1]	The California Department of Transportation (Caltrans) shall prepare a Habitat Mitigation Monitoring Plan (HMMP) that shall comply with all terms and conditions set forth in the permits and opinions issued by the resource agencies and shall include the following provisions: ▪ Permanent impacts to estuarine and riparian/riverine habitat shall be replaced on or off site at a minimum 2:1 ratio with in-kind habitat. Temporary impacts to estuarine and riparian/riverine habitat shall be replaced at a minimum 1:1 ratio with in-kind habitat restored in place within the Biological Study Area (BSA). If off-site restoration is conducted, it shall be done within the same watershed as the Interstate 710 (I-710) Corridor Project. ▪ The HMMP shall identify a success criterion of at least 80 percent cover of native riparian vegetation or composition structure similar to that of an appropriate reference site. The reference site shall be determined based on the type of habitat being impacted and the hydrology and surrounding habitat at the proposed mitigation area.. Further criteria specified in the HMMP shall include an establishment period for the replacement habitat, regular trash removal, and regular maintenance and monitoring activities to ensure the success of the mitigation plan. After construction, annual summary reports of the biological monitoring shall be provided to the United States Army Corps of Engineers (USACE), the California Department of Fish and Wildlife (CDFW), the Regional Water Quality Control Board (RWQCB), and the United States Fish and Wildlife Service (USFWS) documenting the monitoring effort. The duration of the monitoring and reporting shall be established by resource agency permit conditions.	Caltrans (Biologist)	Prior to clearing or construction		

No.	Avoidance, Minimization, and Mitigation Measures	Responsible Party	Timing/Phase	Action Taken to Comply with Avoidance, Minimization, and Mitigation Measures	Date
	The majority of existing estuarine and riparian/riverine communities within the BSA fall under the regulatory jurisdiction of the USACE (pursuant to Section 10 of the RHA and Section 404 of the CWA), the CDFW (pursuant to Section 1602 of the California Fish and Game Code), and the RWQCB (pursuant to Section 401 of the CWA). Compensatory mitigation for these communities would be required to comply with Section 404 of the CWA. Compensatory mitigation will be developed in accordance with the Final Rule on Compensatory Mitigation for Losses of Aquatic Resources (33 CFR Part 325 and 332, and 40 CFR Part 200). At minimum, these habitats subject to regulatory jurisdiction will be mitigated at a minimum mitigation-to- impact ratio of 2:1 for permanent impacts and 1:1 for temporary impacts. Compensatory mitigation may be in the form of habitat restoration and/or enhancement in on- or off-site areas where similar habitat exists. Final details for compensatory mitigation would be evaluated through coordination between Caltrans and the resource agencies. Areas within or directly adjacent to the BSA may offer potential mitigation options. Online research (The River Project 2009; Los Angeles County 2009) and communication with agency representatives (L. Torres [Rivers and Mountains Conservancy], J. Casanova [Los Angeles River and San Gabriel Rivers Watershed Council], and D. Rivera [LACDPW], personal communication, December 30, 2009) revealed that a number of restoration opportunities, some still in progress, exist in the vicinity. Portions of the Joint Dominguez Gap and DeForest Treatment Wetlands Project lie within the BSA. Among other potential options, compensation for the I-710 Corridor Project's impacts to tidal waters may be provided through additional funding for the Golden Shore Marine Preserve (Long Beach Natural Areas 2009). The final report has been submitted for the Compton Creek Improvement Project, which may provide a compensatory mitigation opportunity for riparian scrub and/or freshwater emergent marsh. The Rivers and Mountains Conservancy is looking for potential projects for implementation in the Compton Creek Watershed, as well as in the				

No.	Avoidance, Minimization, and Mitigation Measures	Responsible Party	Timing/Phase	Action Taken to Comply with Avoidance, Minimization, and Mitigation Measures	Date
	Los Angeles River. These potential opportunities will be investigated in coordination with the resource agencies, the Los Angeles County Department of Public Works (LACDPW), and the Santa Monica Mountains Recreation and Conservation Authority (SMMRCA) throughout the planning phase, final design, and the permitting process.				
PLANT SPECIES					
PS-1	In order to mitigate for impacts to southern tarplant, the affected southern tarplant populations will be relocated from within the BSA to nearby protected open space areas in order to maintain these few remaining populations within the vicinity of the I-710 Corridor. Otherwise, to compensate for the loss of these populations, collection and scattering of seed in sunny areas with suitable soil and hydrologic conditions in the region, such as in areas adjacent to existing and remaining populations, during the appropriate time of year may improve the potential for populations of this species to remain stable in future years. Consultation with the CDFW would be completed prior to the restoration effort.	Caltrans (Biologist)	Prior to construction		
ANIMAL SPECIES					
AS-1[1]	New, replacement, and renovated bridges will be designed to ensure the safety of birds flying up and down the Los Angeles River. Suitable fencing or other structural features on the sides of bridges would direct flying birds up and out of the way of traffic, at the same time not serving as dangers themselves, as well as restrict litter and debris from falling into the Los Angeles River during regular operation. Other design measures will be considered if they accomplish the same results. In addition to review and certification by the bridge design and the California Department of Transportation (Caltrans) District Non-Standard Special Provisions (NSSP) team, final bridge design will be reviewed and approved by the Caltrans District 7 biologist, in consultation with the United States Fish and Wildlife Service (USFWS) and the California Department of Fish and Wildlife (CDFW).	Caltrans (Biologist)	During final design		

No.	Avoidance, Minimization, and Mitigation Measures	Responsible Party	Timing/Phase	Action Taken to Comply with Avoidance, Minimization, and Mitigation Measures	Date
INVASIVE SPECIES					
IS-1	A weed abatement program would be developed to minimize the importation of nonnative plant material after construction. Eradication strategies would be employed should an increase in invasive plants occur. At a minimum, this program would include: ▪ After construction, affected areas adjacent to native vegetation would be revegetated with plant species approved by the California Department of Transportation (Caltrans) District Biologist that are native to the vicinity. ▪ After construction, all revegetated areas would avoid the use of species listed in the California Invasive Plant Council's (Cal-IPC) California Invasive Plant Inventory that have a high or moderate rating. ▪ Eradication procedures (e.g., spraying and/or hand weeding) would be outlined should an infestation occur; the use of herbicides would be prohibited within and adjacent to native vegetation, except as specifically authorized and monitored by the Caltrans District Biologist. Weed abatement would be targeted for areas that do not contain ruderal native vegetative species such as milkweed.	Caltrans (Resident Engineer; Landscape Architect)	After construction		
CONSTRUCTION					
CON-LU-1	During construction, the California Department of Transportation (Caltrans) will require the Construction Contractor to maintain vehicular, bicycle, and pedestrian access to businesses within the construction area throughout the construction period. If existing access points are disrupted, alternative access will be provided. Appropriate signage and temporary sidewalks will be provided as needed throughout construction, and the Construction Contractor will provide and maintain appropriate signage to direct pedestrian, bicycle, and vehicular traffic to businesses via alternate routes. Disabled access will also be maintained during construction.	Caltrans (Resident Engineer)	During construction		

No.	Avoidance, Minimization, and Mitigation Measures	Responsible Party	Timing/Phase	Action Taken to Comply with Avoidance, Minimization, and Mitigation Measures	Date
CON-LU-2	During construction, Caltrans will require establishment of one or more public information field office(s) near the construction site(s). The field office(s) will serve the following purposes: ▪ Provide the community and businesses with a physical location where information pertaining to construction can be obtained in both English and Spanish, including information on lane, street, and ramp closures, including pedestrian and bicycle facility closures and applicable detours. ▪ Enable Caltrans staff to facilitate communication between Caltrans staff and residents and business operators. ▪ Notify property owners, residences, and businesses of major construction activities (e.g., utility relocation/disruption, rerouting of delivery trucks) at least 14 days prior to the disruption. ▪ Respond to phone inquiries. ▪ Coordinate business outreach programs, specifically to increase participation in the planning, construction, operation, and maintenance of the project by small businesses, minority-owned businesses, and women-owned businesses in the Study Area. ▪ Conduct periodic informational meetings regarding upcoming construction to provide a forum for interested parties to voice concerns about the construction process.	Caltrans (Resident Engineer; Public Affairs)	During construction		
CON-PR-1	**Development of Closures of the Los Angeles River and Rio Hondo Trails.** Prior to any temporary closures of the Los Angeles River Trail and/or the Rio Hondo Trail, Caltrans will require the Construction Contractor to meet with LACDPW to review the location and need for each closure. Detours for each closure will be developed in consultation with the LACDPW.	Caltrans (Resident Engineer)	Prior to any temporary closures of the Los Angeles River Trail and/or the Rio Hondo Trail		
CON-PR-2	**Signing for Detours of the Los Angeles River and Rio Hondo Trails.** Caltrans will require the Construction Contractor to develop	Caltrans (Resident Engineer)	Prior to trail closure		

No.	Avoidance, Minimization, and Mitigation Measures	Responsible Party	Timing/Phase	Action Taken to Comply with Avoidance, Minimization, and Mitigation Measures	Date
	signs directing trail users to alternative routes in consultation with LACDPW and the local jurisdictions through which detours will be routed. Appropriate directional and informational signage will be provided by the Construction Contractor prior to each closure and far enough away from the closure, so that trail users will not have to backtrack to get to the detour route.				
CON-PR-3	**Contact Information during Closures and Detours of the Los Angeles River and Rio Hondo Trails.** Caltrans will require the Construction Contractor to provide a contact number and other information to trail users to contact the Construction Contractor regarding upcoming or active trail closures. The Construction Contractor will also be required to provide that information to the LACDPW and the City Public Works Departments in the jurisdictions where the closures/detours are located.	Caltrans (Resident Engineer)	During closures and detours		
CON-PR-4	**Restoration of Closed Areas on the Los Angeles and Rio Hondo Trails.** Caltrans will require the Construction Contractor to return trail segments closed temporarily during construction to the Los Angeles County Department of Public Works (LACDPW) in their original, or better, condition after completion of construction, and the ownership of those temporarily closed areas will remain with the original owner (the LACDPW).	Caltrans (Resident Engineer)	After construction is complete		
CON-U&ES-1	**Fire, Law Enforcement, Emergency Services and School Districts.** Prior to and during construction, Caltrans and the Construction Contractor will coordinate all temporary ramp closures and detour plans with fire, emergency medical, and law enforcement providers, as well as with local jurisdictions' Departments of Public Works, to minimize temporary delays in emergency response times as part of the Transportation Management Plan (TMP), including the identification of alternative routes and routes across the construction areas for emergency vehicles, developed in coordination with the affected agencies. In addition, as part of the TMP, prior to and during construction, Caltrans and the Construction Contractor will coordinate all	Caltrans (Resident Engineer)	Prior to and during construction		

No.	Avoidance, Minimization, and Mitigation Measures	Responsible Party	Timing/Phase	Action Taken to Comply with Avoidance, Minimization, and Mitigation Measures	Date
	temporary ramp closures and detour plans with local school districts and individual schools as identified by the school districts to minimize temporary delays to school bus services and to minimize effects on students who walk to school, including ensuring that pedestrian detours are safe for student use. This coordination will include the identification of alternative bus and pedestrian travel routes including routes to and around construction areas to and from individual schools.				

No.	Avoidance, Minimization, and Mitigation Measures	Responsible Party	Timing/Phase	Action Taken to Comply with Avoidance, Minimization, and Mitigation Measures	Date
CON- U&ES-2	**Utilities.** Major utility relocations will be subject to preparation of Specific Utility Relocation Plans. For temporary impacts, the Specific Utility Relocation Plans will include (Specific Utility Relocation Plan elements for permanent impacts are included in Section 3.4, Utilities and Emergency Services): ▪ Description of proposed changes/demolition of existing facilities. ▪ Identification of potential conflicts that need to be resolved with the relocation plan, including temporary roads and staged construction. ▪ A work plan that describes the nature of the construction activity, haul routes, a construction transportation management plan if warranted, hours of construction, construction duration and schedule, planned service interruptions, if any, types of construction activities, and anticipated noise level. ▪ A summary of existing and planned Utility Team Coordination Meetings that will include all utility companies and local jurisdictions' Departments of Public Works affected by the project. The meetings will occur during the final design phase and include final design and construction staging. The meeting participants will discuss and plan a workable sequence of utility alterations so that the utility work can be coordinated and, where possible, completed in advance of highway work. Topics to be addressed include sensitive environmental areas, hazardous material sites, erosion controls during construction, and any community events that will be occurring during construction and need to be accommodated. ▪ A determination if a community meeting will be held prior to the issuance of demolition and grading permits. Community meetings will be held for major utility relocations that are (1) within 500 feet of residences or schools, and (2) that will	Caltrans (Resident Engineer)	Prior to construction		

No.	Avoidance, Minimization, and Mitigation Measures	Responsible Party	Timing/Phase	Action Taken to Comply with Avoidance, Minimization, and Mitigation Measures	Date
	require construction duration of 30 days or more. Caltrans will hold a community pre-construction meeting, in concert with the Construction Contractor, to provide information regarding the construction schedule and activities. The construction information will include the location and duration of each construction activity, whether or not and, if applicable, the specific location, days, frequency, and duration of the pile driving that will occur, construction transportation management plans, and any accommodation of community events that will be occurring during the construction period. Notification of this meeting will be provided to owners and occupants within 500 feet of the utility relocation site.				
CON- U&ES-3[1]	Prior to grading activities, Caltrans will require the Construction Contractor to notify Underground Service Alert at least two days prior to excavation by calling 811 to require that all utility owners within the project disturbance limits identify the locations of underground transmission lines and facilities.	Caltrans (Resident Engineer)	Prior to grading activities		
CON-TR-1[1]	**Transportation Management Plan.** Prior to construction, Caltrans will prepare a TMP to address short-term traffic impacts during construction of the Interstate 710 (I-710) Corridor Project. The objectives of the TMP are to: ▪ Maintain traffic safety during construction ▪ Maintain an acceptable level of traffic flow throughout the transportation system during construction ▪ Minimize traffic delays and facilitate reduction in the overall duration of construction activities ▪ Minimize detours and impacts to, and maintain connectivity for, pedestrians and bicyclists ▪ Foster public awareness of the project and construction-related impacts	Caltrans (Resident Engineer; District Traffic Manager)	Prior to construction		

No.	Avoidance, Minimization, and Mitigation Measures	Responsible Party	Timing/Phase	Action Taken to Comply with Avoidance, Minimization, and Mitigation Measures	Date
	The TMP will include the elements recommended in the Caltrans TMP Guidelines (November 2015), including: ▪ Public Information and Outreach ▪ Traveler Information Strategies ▪ Incident Management ▪ Construction Strategies ▪ Demand Management ▪ Alternate Route Strategies Also, to be consistent with the Caltrans *Complete Intersections Guide: A Guide to Reconstructing Intersections and Interchanges for Bicycles and Pedestrians* (2010), the TMP will consider the short-term project effects on all travel modes including pedestrians, bicyclists, and transit users to minimize closures and the effects of temporary detours on those travelers. The TMP will include public outreach, including information on current and upcoming project construction activities, lane and other closures, detours, and other information to assist residents, students, visitors, and business patrons to more effectively travel around and in the vicinity of active construction areas.				
CON-TR-2	Prior to construction, an evaluation of damage to the pavement surface on local roadways that may occur due to project-related construction traffic will be completed. New pavement will be provided on local arterials that connect to or cross over (or under) I-710 where such roadways will be directly affected by project construction after project completion in the vicinity of each arterial.	Caltrans (Resident Engineer; Project Design Engineer)	Prior to construction and after project completion		

No.	Avoidance, Minimization, and Mitigation Measures	Responsible Party	Timing/Phase	Action Taken to Comply with Avoidance, Minimization, and Mitigation Measures	Date
CON-TR-3	To minimize travel time delays on I-710 during project construction, Caltrans and Metro will work with area transit operators to implement a Transit Subsidy Program that will provide discounted transit fares in areas impacted by construction as well as performing outreach and marketing to incentivize use of transit during construction periods.	Caltrans and Metro, in coordination with project funding partners and local transit operators	During final design and during construction		
CON-CUL-1	If cultural materials are discovered during construction, all earth-moving activity within and around the immediate discovery area will be diverted until a qualified archaeologist can assess the nature and significance of the find.	Caltrans (Resident Engineer; Archaeologist)	If cultural materials are discovered during construction		
CON-CUL-2[1]	If human remains are discovered, State Health and Safety Code Section 7050.5 states that further disturbances and activities will cease in any area or nearby area suspected to overlie remains, and the County of Los Angeles (County) Coroner will be contacted. Pursuant to Public Resources Code (PRC) Section 5097.98, if the remains are thought to be Native American, the coroner will notify the Native American Heritage Commission, which will then notify the Most Likely Descendant (MLD). At that time, the District 7 Environmental Branch Chief or the District 7 Native American Coordinator will be contacted so that he/she may work with the MLD on the respectful treatment and disposition of the remains. Further provisions of PRC 5097.98 are to be followed as applicable.	Caltrans (Resident Engineer; Archaeologist)	If human remains are discovered during construction		
CON-CUL-3	Caltrans will develop a project-level Programmatic Agreement (PA) following submittal of a Supplemental Finding of Effect document. Also, an Historic Properties Treatment Plan (HPTP) will be developed by a qualified archaeologist in consultation with Caltrans PQS Principal Investigator-Prehistoric or Historic Archaeology to plan for the identification, evaluation, and treatment of archaeological resources should they be discovered during construction. The draft HPTP will be attached to the project level PA. Caltrans will continue consultation with the SHPO on the preparation of the project-level PA and the HPTP following submittal of the Supplemental Finding of Effect..	Caltrans (Resident Engineer; Archaeologist)	Prior to construction		

No.	Avoidance, Minimization, and Mitigation Measures	Responsible Party	Timing/Phase	Action Taken to Comply with Avoidance, Minimization, and Mitigation Measures	Date
CON-WQ-1[1]	Caltrans will require the Construction Contractor to comply with the provisions of the National Pollutant Discharge Elimination System (NPDES) General Permit for Stormwater Discharges Associated with Construction and Land Disturbance Activities (Order No. 2012-0006--DWQ, NPDES No. CAS000002) and any subsequent permit as they relate to construction activities for the project. This will include submission of the Permit Registration Documents, including a Notice of Intent (NOI), risk assessment, site map, Storm Water Pollution Prevention Plan (SWPPP), annual fee, and signed certification statement to the State Water Quality Control Board (SWRCB) at least 14 days prior to the start of construction. The SWPPP will meet the requirements of the Construction General Permit and will identify pollutant sources associated with construction activities; identify non-stormwater discharges; develop a water quality monitoring and sampling plan; and identify, implement, and maintain Best Management Practices (BMPs) to reduce or eliminate pollutants associated with the construction site. The BMPs identified in the SWPPP will be implemented during project construction. A Notice of Termination will be submitted to the SWRCB upon completion of construction and the stabilization of the site.	Caltrans (Resident Engineer, Project Design Engineer; Stormwater Management)	Prior to, during, and after construction		
CON-WQ-2[1]	Caltrans will require the Construction Contractor to comply with the provisions of the Waste Discharge Requirements for Discharges of Groundwater from Construction and Project Dewatering to Surface Waters in Coastal Watersheds of Los Angeles and Ventura Counties, Order No. R4-2013-0095, NPDES No. CAG994004, as they relate to discharge of non-stormwater dewatering wastes for the project, including monitoring and reporting requirements. This includes complying with the prescribed Monitoring and Reporting Program and submitting to the Los Angeles Regional Water Quality Control Board (RWQCB) a NOI at least 45 days prior to the start of non-stormwater dewatering discharge. In addition, a Notice of Termination will be submitted upon completion of dewatering discharge.	Caltrans (Project Design Engineer, Resident Engineer; Stormwater Management)	During construction		

No.	Avoidance, Minimization, and Mitigation Measures	Responsible Party	Timing/Phase	Action Taken to Comply with Avoidance, Minimization, and Mitigation Measures	Date
CON-GEO-1[1]	Caltrans will prepare a quality assurance/quality control plan that will be maintained during construction. The plan will include observing, monitoring, and testing by a geotechnical engineer and/or geologist during construction to confirm that geotechnical/ geologic recommendations are fulfilled, or if different site conditions are encountered, appropriate changes are made to accommodate such issues. The geotechnical engineer will prepare weekly reports while grading excavation and construction activities are underway.	Caltrans (Resident Engineer, Geotechnical Engineer)	Prior to and during construction		
CON-PAL-1	In accordance with the Paleontological Mitigation Plan (refer to PAL-1 in Section 3.11), a pre-construction field survey shall be conducted in areas identified as having high paleontological sensitivity after vegetation and paving have been removed, followed by salvage of any observed surface paleontological resources prior to the beginning of additional grading.	Caltrans (Paleontologist)	Prior to construction		
CON-PAL-2	During construction excavation, a qualified vertebrate paleontological monitor shall initially be present on a full-time basis whenever excavation will occur within the sediments that have a high paleontological sensitivity rating and on a spot-check basis for excavation in sediments that have a low sensitivity rating. Monitoring may be reduced to a part-time basis if no resources are being discovered in sediments with a high sensitivity rating (monitoring reductions, when they occur, will be determined by the qualified Principal Paleontologist in consultation with the Caltrans Resident Engineer [RE]). The monitor shall inspect fresh cuts and/or spoils piles to recover paleontological resources. With the RE's approval, the monitor shall temporarily divert construction equipment away from the immediate area of the discovery. The monitor shall be equipped to rapidly stabilize and remove fossils to avoid prolonged delays to construction schedules. If large mammal fossils or large concentrations of fossils are encountered, Caltrans shall consider using heavy equipment on site to assist in the removal and collection of large materials.	Caltrans (Paleontologist)	During construction excavation		

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CON-HW-1[1]	During construction, the Construction Contractor will test and remove yellow traffic stripes and pavement marking material in accordance with Standard Special Provision 14-11.12.	Caltrans (Resident Engineer, Hazardous Waste Engineer)	During construction		
CON-HW-2[1]	If suspect hazardous waste or underground tanks are encountered during construction, the Construction Contractor will stop work and follow the procedures outlined in Appendix E of the Caltrans' *Unknown Hazards Procedures for Construction.*	Caltrans (Resident Engineer; Hazardous Waste Engineer)	If suspect hazardous waste or underground tanks are encountered during construction		
CON-HW-3[1]	During preparation of Plans, Specifications, and Estimates, Metro's contractor (with oversight from Caltrans) will conduct a groundwater evaluation to assess disposal alternatives for groundwater encountered during construction and to comply with the requirements of the NPDES permitting process.	Caltrans (Resident Engineer, Hazardous Waste Engineer) overseeing Metro contractor	During preparation of PS & E		
CON-AQ-1	The Construction Contractor will comply with Caltrans Standard Specifications. ▪ Section 7, "Legal Regulations and Responsibility to the Public," addresses the Construction Contractor's responsibility on many items of concern, such as compliance by the Construction Contractor with laws and regulations and responsibilities for public safety and convenience. Section 7-1.03 specifically requires application of a dust palliative for the prevention or alleviation of dust nuisance, and Section 7-1.04, "Public Safety," specifically states "Control dust resulting from the work, inside and outside the right-of-way." ▪ Section 13 is directed at water pollution control and specifically, Section 13-5 discusses temporary soil stabilization. ▪ Section 14, "Environmental Stewardship," includes specifications relating to environmental compliance and environmental resource management. Specifically, Section 14-9 includes specifications relating to air quality, including	Caltrans (Resident Engineer)	During construction		

No.	Avoidance, Minimization, and Mitigation Measures	Responsible Party	Timing/Phase	Action Taken to Comply with Avoidance, Minimization, and Mitigation Measures	Date
	14-9.02, Air Pollution Control, which directs the Construction Contractor to comply with applicable air pollution control rules, regulations, ordinances and statutes.				
CON-AQ-2	The Construction Contractor will apply water or dust-palliative per Caltrans Standard Specifications Section 18 or applicable air district regulations, whichever are more stringent for air quality, to the site and equipment as frequently as necessary to control fugitive dust emissions. South Coast Air Quality Management District (SCAQMD) Rule 403 will also be followed.	Caltrans (Resident Engineer)	During construction		
CON-AQ-3	The Construction Contractor will spread soil binder on any unpaved roads used during construction and all project construction parking areas, consistent with storm water pollution control requirements (Caltrans Standard Specifications Section 13-5).	Caltrans (Resident Engineer)	During construction		
CON-AQ-4	Section 13 of the Caltrans Standard Specifications discusses Water Pollution Control. Specifically, Section 13-5, "Temporary Soil Stabilization," directs the Construction Contractor to utilize various methods to control and minimize wind erosion, among other occurrences, that will also alleviate instances of fugitive dust.	Caltrans (Resident Engineer)	During construction		
CON-AQ-5	The Construction Contractor will properly tune and maintain construction equipment and vehicles. The Construction Contractor will use low-sulfur fuel in all construction equipment as provided in California Code of Regulations (CCR) Title 17, Section 93114.	Caltrans (Resident Engineer)	During construction		
CON-AQ-6	The Construction Contractor will develop and implement a dust control plan documenting sprinkling, temporary paving, speed limits, and expedited revegetation of disturbed slopes as needed to minimize construction fugitive dust impacts to adjacent land uses.	Caltrans (Resident Engineer)	Prior to and during construction		
CON-AQ-7	The Construction Contractor will locate equipment and materials storage sites as far away from adjacent residential and park uses as practical. The Construction Contractor will keep construction areas clean and orderly.	Caltrans (Resident Engineer)	Prior to and during construction		

No.	Avoidance, Minimization, and Mitigation Measures	Responsible Party	Timing/Phase	Action Taken to Comply with Avoidance, Minimization, and Mitigation Measures	Date
CON-AQ-8	The Construction Contractor will establish Environmentally Sensitive Areas (ESAs) for sensitive air receptors within which construction activities involving extended idling of diesel equipment will be prohibited to the extent feasible. In addition, a strong anti-idling policy will be implemented at all construction sites as part of an air quality impact training program that will include education on potential health risks to nearby receptors and ways to reduce emissions, including no idling, use of PM filters, use of alternative fuels, etc.	Caltrans (Resident Engineer; Air Quality Specialist)	Prior to construction		
CON-AQ-9	The Construction Contractor will use track-out reduction measures such as gravel pads at project access points to minimize dust and mud deposits on off-site roads used by construction traffic, consistent with storm water pollution control requirements (Caltrans Standard Specifications Section 13-7).	Caltrans (Resident Engineer)	Prior to construction		
CON-AQ-10	The Construction Contractor will cover all loads of soils and wet materials prior to transport, or provide adequate freeboard (space from the top of the material to the top of the truck) to reduce particulate matter less than ten microns in size (PM10) and the deposition of particulate matter during transportation.	Caltrans (Resident Engineer)	During construction		
CON-AQ-11	The Construction Contractor will remove dust and mud deposited on paved public roads due to construction activity and traffic to decrease particulate matter, consistent with storm water pollution control requirements (Caltrans Standard Specifications Section 13-7).	Caltrans (Resident Engineer)	During construction		
CON-AQ-12	The Construction Contractor will route and schedule construction traffic to avoid peak travel times as much as possible and to reduce congestion and related air quality impacts caused by idling vehicles along local roads.	Caltrans (Resident Engineer)	Prior to and during construction		
CON-AQ-13	The Construction Contractor will install mulch or plant vegetation as soon as practical after grading to reduce windblown particulates in the area.	Caltrans (Resident Engineer)	As soon as practical after grading		

No.	Avoidance, Minimization, and Mitigation Measures	Responsible Party	Timing/Phase	Action Taken to Comply with Avoidance, Minimization, and Mitigation Measures	Date
CON-AQ-14	During clearing, grading, earthmoving, or excavation operations, excessive fugitive dust emissions will be controlled by regular watering or other dust preventive measures using the following procedures, as specified in the SCAQMD Rule 403. All material excavated or graded will be sufficiently watered to prevent excessive amounts of dust. Watering will occur at least twice daily with complete coverage, preferably in the late morning and after work is done for the day. All material transported on site or off site will be either sufficiently watered or securely covered to prevent excessive amounts of dust. The area disturbed by clearing, grading, earth moving, or excavation operations will be minimized so as to prevent excessive amounts of dust. These control techniques will be indicated in project specifications. Visible dust beyond the property line emanating from the project will be prevented to the maximum extent feasible.	Caltrans (Resident Engineer)	During clearing, grading, earthmoving, or excavation operations		
CON-AQ-15	Construction equipment used during project construction will meet equivalent emissions performance to that of United States Environmental Protection Agency (EPA) Tier 4 standards and California Air Resources Board (ARB) requirements for non-road engines, depending on the responsible agency that administers the construction contract and the availability of construction equipment compliant with these standards. If Metro administers the construction contract, then Metro's Green Construction Policy will be utilized.	Caltrans (Resident Engineer)	Prior to construction		
CON-AQ-16	Caltrans will instruct the Construction Contractor to comply with ARB's anti-idling rule, which prohibit diesel truck idling in excess of five minutes.	Caltrans (Resident Engineer)	During construction		

No.	Avoidance, Minimization, and Mitigation Measures	Responsible Party	Timing/Phase	Action Taken to Comply with Avoidance, Minimization, and Mitigation Measures	Date
CON-AQ-17	The following measures from Appendix G of the 2012 SCAG RTP/SCS Programmatic Environmental Impact Report and the 2016 SCAG RTP/SCS will be implemented during construction: ▪ Excavating and grading activities will cease during second stage smog alerts and periods of high winds. ▪ Construction roads that have high traffic volumes will be surfaced with base material, decomposed granite, or otherwise stabilized or paved. ▪ Traffic speeds on all unpaved surfaces will not exceed 25 miles per hour. ▪ To the extent possible, construction activity should utilize electricity from on-site power poles rather than diesel and/or gasoline powered generators. ▪ A person or persons will be appointed to monitor the dust control program and to order increased watering, as necessary, to prevent transport of dust off site. Their duties should include holidays and weekend periods when work may not be in progress. The name and telephone number of such persons should be provided to the local air district prior to the start of construction as well as posted on site over the duration of construction. ▪ Appropriate wind-breaks will be installed at the construction site to minimize windblown dust. ▪ Land disturbance will be minimized. ▪ Unnecessary vehicular and machinery activities will be minimized. ▪ The contractor will be required to assemble a comprehensive inventory list of all heavy-duty off-road equipment that could be used an aggregate of 40 or more hours for the project and prepare a plan for approval by SCAQMD demonstrating achievement of the applicable percent reduction for a ARB-	Caltrans (Resident Engineer)	During construction		

No.	Avoidance, Minimization, and Mitigation Measures	Responsible Party	Timing/Phase	Action Taken to Comply with Avoidance, Minimization, and Mitigation Measures	Date
	approved fleet. ▪ Portable engines and portable engine-driven equipment units used at the project work site, with the exception of on-road and off-road motor vehicles, will be required to obtain ARB Portable Equipment Registration with the State or a local district permit. Appropriate consultations with the ARB or the SCAQMD will occur to determine registration and permitting requirements prior to equipment operation at the site. ▪ EPA's National Clean Diesel Program will be implemented. ▪ Diesel- or gasoline-powered equipment will be replaced by the lowest emitting feasible for each piece of equipment from among these options: electric equipment whenever feasible or gasoline-powered equipment if electric infeasible. ▪ If cranes are required for construction, they shall be rated at 200 hp or greater and equipped with Tier 4 or equivalent engines. ▪ Alternative diesel fuels, such as Clean Fuels Technology (water emulsified diesel fuel) or O2 diesel ethanol-diesel fuel (O2 Diesel) in existing engines, will be used. ▪ "Clean construction equipment fleet," defined as a fleet mix cleaner than the State average, will be included in all construction contracts. ▪ All off-road and portable diesel-powered equipment will be fueled with ARB-certified motor vehicle diesel fuel (non-taxed version suitable for use off-road). ▪ Electric fleet or alternative-fueled vehicles will be used where feasible including methanol, propane, and compressed natural gas. ▪ On-road, heavy-duty trucks that meet the ARB's 2007 or cleaner certification standards for on-road diesel engines, and				

No.	Avoidance, Minimization, and Mitigation Measures	Responsible Party	Timing/Phase	Action Taken to Comply with Avoidance, Minimization, and Mitigation Measures	Date
	compliance with State on-road regulations. ▪ Idle reduction technology, defined as a device that is installed on the vehicle that automatically reduces main engine idling and/or is designed to provide services, e.g., heat, air conditioning, and/or electricity to the vehicle or equipment that would otherwise require the operation of the main drive engine while the vehicle or equipment is temporarily parked or is stationary, will be used. ▪ Minimize idling time either by shutting off equipment when not in use or limit idling time to three minutes. Signs shall be posted in the designated queuing areas and/or job sites to remind drivers and operators of the three-minute idling limit. The Construction Contractor shall maintain a written idling policy and distribute it to all employees and subcontractors. The on-site construction manager shall enforce this limit. ▪ Diesel idling within 1,000 feet of sensitive receptors will be prohibited. ▪ Staging and queuing areas shall not be located within 1,000 feet of sensitive receptors. ▪ The number of construction equipment in operation simultaneously shall be minimized through efficient management practices to ensure that the smallest practical number is operating at any one time. ▪ The engine size of the construction equipment shall be the minimum practical size. ▪ Catalytic converters shall be installed on gasoline-powered equipment. ▪ Signs shall be posted in designated queuing areas and job sites to remind drivers and operators of the idling limit. ▪ Construction worker trips shall be minimized by providing				

No.	Avoidance, Minimization, and Mitigation Measures	Responsible Party	Timing/Phase	Action Taken to Comply with Avoidance, Minimization, and Mitigation Measures	Date
	options for carpooling and by providing for lunch on site. ▪ Use of new or rebuilt equipment. ▪ Use of low-rolling resistance tires on long haul class 8 tractor-trailers. ▪ Install a ARB-verified, Level 3 emission control device, e.g., diesel particulate filters, on all diesel engines.				
CON-N-1[1]	Equipment noise control will be utilized and applied to revising old equipment and designing new equipment to meet specified noise levels during construction of the proposed project.	Caltrans (Resident Engineer)	Prior to construction		
CON-N-2	The Construction Contractor will utilize in-use noise control where existing equipment is not permitted to produce noise levels in excess of specified limits.	Caltrans (Resident Engineer)	During construction		
CON-N-3	The Construction Contractor will implement site restrictions during construction activity in an attempt to achieve noise reduction through modifying the time, place, or method of operation of a particular source.	Caltrans (Resident Engineer)	Prior to construction		
CON-N-4	The Construction Contractor will implement personal training of operators and supervisors to become more aware of the construction site noise problems.	Caltrans (Resident Engineer)	Prior to construction		
CON-N-5	The Construction Contractor will implement equipment noise control that is needed to reduce the noise emissions from construction sites by mandating specified noise levels for the design of new equipment and updating old equipment with new noise control devices and techniques, as described below: ▪ Mufflers are very effective devices, which reduce the noise emanating from the intake or exhaust of an engine, compressor, or pump. The fitting of effective mufflers on all new equipment and the retrofitting of mufflers on existing equipment will be necessary to yield an immediate noise reduction at all types of road construction sites.	Caltrans (Resident Engineer)	Prior to construction		

No.	Avoidance, Minimization, and Mitigation Measures	Responsible Party	Timing/Phase	Action Taken to Comply with Avoidance, Minimization, and Mitigation Measures	Date
	▪ Sealed and lubricated tracks for crawler mounted equipment will lessen the sound radiated from the track assembly resulting from metal-to-soil and metal-to-metal contact. Contractors, site engineers, and inspectors will ensure that the tracks are kept in excellent condition by periodic maintenance and lubrication. ▪ Lowering exhaust pipe exit heights closer to the ground can result in an off-site noise reduction. Barriers are more effective in attenuating noise when the noise source is closer to ground level. ▪ General noise control technology can have substantially quieter construction equipment when manufacturers apply state-of-the-art technology to new equipment or repair old equipment to maintain original equipment noise levels.				
CON-N-6	The Construction Contractor will implement in–use site noise control measures that are necessary to prevent existing equipment from producing noise levels in excess of specified limits. Any equipment that produces noise levels less than the specified limits will not be affected. However, those exceeding the limit will be required to meet compliance by repair, retrofit, or replacement. New equipment with the latest noise-sensitive components and noise control devices are generally quieter than older equipment, if properly maintained and inspected regularly. It will be repaired or replaced if necessary to maintain the in-use noise limit. All equipment applying the in-use noise limit will achieve an immediate noise reduction if properly enforced.	Caltrans (Resident Engineer)	Prior to and during construction		
CON-N-7	The Construction Contractor will apply site restrictions to achieve noise reduction through different methods, resulting in an immediate reduction of noise emitted to the community without requiring any modification to the source noise emissions. The methods include shielding with barriers for equipment and site, truck rerouting and traffic control, time scheduling, and equipment relocation. The effectiveness of each method depends on the type	Caltrans (Resident Engineer; Noise Engineer)	Prior to and during construction		

No.	Avoidance, Minimization, and Mitigation Measures	Responsible Party	Timing/Phase	Action Taken to Comply with Avoidance, Minimization, and Mitigation Measures	Date
	of construction involved and the site characteristics. ▪ Shielding with barriers will be implemented at an early stage of a project to reduce construction equipment noise. The placement of barriers must be carefully considered to reduce limitation of site access. Barriers may be natural or man-made, such as excess land fill used as a temporary berm strategically placed to act as a barrier. They may also include the construction of soundwalls as the first order of work, if their construction will not be precluded by other construction activities, so that the walls may help to abate construction noise. ▪ Efficient rerouting of trucks and control of traffic activity on construction sites will reduce noise due to vehicle idling, gear shifting, and accelerating under load. Planning proper traffic control will result in efficient workflow and reduce noise levels. In addition, rerouting trucks does not reduce noise levels but transfers noise to other areas that are less sensitive to noise. ▪ Time scheduling of activities will be implemented to minimize noise impacts on exposed areas. Local activity patterns and surrounding land uses must be considered in establishing site curfews. However, limiting working hours can decrease productivity. Sequencing the use of equipment with relatively low noise levels versus equipment with relatively high noise levels during noise-sensitive periods will be an effective noise control measure. ▪ Equipment location will be as far from noise-sensitive land use areas as possible. The Construction Contractor will substitute quieter equipment or use quieter construction processes at or near noise-sensitive areas.				

No.	Avoidance, Minimization, and Mitigation Measures	Responsible Party	Timing/Phase	Action Taken to Comply with Avoidance, Minimization, and Mitigation Measures	Date
CON-N-8	The Construction Contractor(s) and their employees will be educated via a training program to be sensitive to noise impact problems and noise control methods. This may be one of the most cost-effective ways to help operators and supervisors become more aware of the construction site noise problem and to implement the various methods of improving the conditions. The Construction Contractor will conduct a training program for equipment operators to instruct them in methods of operating their equipment to minimize environmental noise. Many training programs are presently given on the subject of job safety. This can be extended to include the impacts due to noise and methods of abatement.	Caltrans (Resident Engineer; Noise Engineer)	Prior to construction		
CON-N-9[1]	A pre- and post-construction survey will be conducted for residential structures located within 100 feet of pile driving locations to determine whether any new cracks or other damage have occurred. The proposed project will be responsible for the cost of damage to structures resulting from project construction.	Caltrans (Resident Engineer; Noise Engineer)	Prior to and after construction is complete		
CON-N-10[1]	The Construction Contractor will be required to utilize alternatives to pile driving such as pre-drilling and cast-in-place will be required to limit vibration generation to a negligible amount.	Caltrans (Resident Engineer; Project Design Engineer; Noise Engineer)	During construction		
CON-E-1	Prior to the completion of final design, Caltrans shall prepare a construction efficiency plan, which will include the following: ▪ Select disposal sites as close as practicable to the I-710 construction area to minimize haul distances and excavation-related fuel consumption. ▪ Reuse existing rail, steel, and lumber wherever possible, such as for falsework, shoring, and other applications during the construction process. ▪ Recycle asphalt taken up from roadways, if practicable and cost-effective. ▪ Using newer, more energy-efficient equipment and maintain older construction equipment in good working order.	Caltrans (Resident Engineer; Project Design Engineer)	Prior to the completion of final design		

No.	Avoidance, Minimization, and Mitigation Measures	Responsible Party	Timing/Phase	Action Taken to Comply with Avoidance, Minimization, and Mitigation Measures	Date
	▪ Schedule construction operations to result in the most efficient use of construction equipment possible. ▪ Promoting employee carpooling.				
CON-E-2	Prior to the completion of project construction, Caltrans shall prepare a maintenance efficiency plan which will include the following: ▪ Maintain maintenance equipment in good working order. ▪ Schedule maintenance operations to result in the most efficient use of maintenance equipment possible.	Caltrans (Resident Engineer; Maintenance)	Prior to completion of construction		
CON-NC-1	Prior to clearing or construction, highly visible barriers (such as orange construction fencing) will be installed around sensitive habitats adjacent to the project footprint under the guidance of a biological monitor to designate ESAs to be preserved. No grading or fill activity of any type will be permitted within these ESAs. In addition, no construction activities, materials, or equipment will be allowed within the ESAs. All construction equipment will be operated in a manner so as to prevent accidental damage to nearby preserved areas. No structure of any kind, or incidental storage of equipment or supplies, will be allowed within the ESAs. Silt fence barriers will be installed at ESA boundaries to prevent accidental deposition of fill material in areas where the ESA is immediately adjacent to planned grading activities.	Caltrans (Resident Engineer; Biologist)	Prior to clearing or construction		
CON-NC-2	A biologist will monitor construction within the vicinity of estuarine and riparian/riverine habitats for the duration of the project to ensure that vegetation removal, BMPs, ESAs, and all avoidance and minimization measures are properly implemented.	Caltrans (Biologist)	During construction, for the duration of the project		
CON-NC-3	A biological monitor will be present during all vegetation clearing to flush any wildlife species present prior to construction.	Caltrans (Biologist)	During all vegetation clearing		

No.	Avoidance, Minimization, and Mitigation Measures	Responsible Party	Timing/Phase	Action Taken to Comply with Avoidance, Minimization, and Mitigation Measures	Date
CON-NC-4	An employee education program for all construction personnel will be developed and implemented by the biological monitor prior to construction. At a minimum, the program will include the following topics: (1) responsibilities of the biological monitor; (2) delineation and installation of visible barriers of ESAs; (3) limitations on all movement of those employed on site, including ingress and egress of equipment and personnel, to designated construction zones (personnel shall not be allowed access to ESAs); (4) on-site pet prohibitions; (5) use of trash containers for disposal and removal of trash; (6) project features designed to reduce the impacts to listed species and habitat and promote continued successful occupation of adjacent habitat areas; (7) identification and information regarding special-status species (e.g. burrowing owl, southern tarplant, eelgrass); and (8) identification and information regarding invasive species (e.g. Caulerpa taxifolia).	Caltrans (Resident Engineer; Biologist)	Prior to construction		
CON-NC-5	Preconstruction surveys for eelgrass will be conducted by a qualified biologist. Eelgrass warrants a strong protection strategy because of the important biological, physical, and economic values it provides, as well as its importance to managed species under the Magnuson-Stevens Fishery Conservation and Management Act. If eelgrass is present at that time, work will be stopped within a 100-foot radius of discovery and a qualified biological monitor will be notified.	Caltrans (Biologist)	Prior to construction		
CON-NC-6	The use of rodenticides, herbicides, insecticides, or other chemicals that could potentially harm listed species shall be prohibited in and adjacent to sensitive habitats. Use of rodenticides, herbicides, insecticides, or other chemicals in other areas will be monitored by a qualified biologist to ensure no accidental effects in sensitive habitats.	Caltrans (Biologist)	During construction		

No.	Avoidance, Minimization, and Mitigation Measures	Responsible Party	Timing/Phase	Action Taken to Comply with Avoidance, Minimization, and Mitigation Measures	Date
CON-NC-7	A Habitat Mitigation and Monitoring Plan (HMMP) that is acceptable by the USACE, the CDFW, and the RWQCB is expected to be required as a condition of the permit approvals required from each agency. If required, the HMMP will be developed and submitted to the applicable resource agencies for approval as part of the regulatory permit application.	Caltrans (Biologist)	Prior to construction		
CON-NC-8	A construction SWPPP and soil erosion and sedimentation plan will be developed by the Construction Contractor to minimize erosion and identify specific pollution prevention measures that will eliminate or control potential point and nonpoint pollution sources on site during and following the project's construction phase. The SWPPP will identify specific BMPs to be implemented during project construction so as not to cause or contribute to an exceedance of any water quality standard. A Storm Preparation and Evacuation Plan shall be prepared as part of the SWPPP prepared for the project. The plan shall include a requirement that no work shall occur within drainages during storm events. In addition, the SWPPP will contain provisions for changes to the plan such as alternative mechanisms, if necessary, during project design and/or construction to achieve the stated goals and performance standards.	Caltrans (Resident Engineer; Stormwater Management)	Prior to construction		
CON-NC-9	All avoidance, minimization, and mitigation measures identified in the Habitat Mitigation Monitoring Plan (HMMP), the Fisheries Management Plan, and the SWPPP will be followed.	Caltrans (Resident Engineer; Biologist)	For the duration of the project		
CON-NC-10	BMPs will be included in the Fisheries Management Plan and/or SWPPP to limit the resuspension of sediment and to manage resuspended sediment during construction in and adjacent to the Los Angeles River, particularly to limit the spread of contaminated sediment. These BMPs may include cofferdams, silt or turbidity curtains, or other watertight barricades surrounding the work areas that will contain resuspended sediment in the work area until it settles.	Caltrans (Resident Engineer; Biologist; Stormwater Management)	Prior to construction		

No.	Avoidance, Minimization, and Mitigation Measures	Responsible Party	Timing/Phase	Action Taken to Comply with Avoidance, Minimization, and Mitigation Measures	Date
CON-NC-11	All equipment maintenance, staging, and dispensing of fuel, oil, or any other such activities will occur in developed or designated nonsensitive upland habitat areas. The designated upland areas will be located in such a manner as to prevent runoff from any spills from entering sensitive habitats and waters of the United States.	Caltrans (Resident Engineer; Biologist)	Prior to and during construction		
CON-NC-12	In addition to specific BMPs identified in the SWPPP, project construction shall be carried out under standard BMPs (e.g., no staging or vehicle repair in sensitive areas, implementation of erosion control measures, and fuel spill cleanup). During project construction, the proper use and disposal of oil, gasoline, diesel fuel, antifreeze, lead paint, and other toxic substances shall be enforced. No construction materials, equipment, debris, or waste shall be placed or stored where it may be subject to tidal erosion and dispersion. Construction materials shall not be stored in direct contact with the soil anywhere along the project alignment.	Caltrans (Resident Engineer; Biologist)	During construction		
CON-NC-13	Measures to contain all contaminated soils and material, including contaminated topsoil and lead-based paint from demolished bridges, shall be in place prior to and during soil moving (e.g., grading) and demolition activities. All contaminated soils and material shall be removed from the BSA and disposed of at an approved disposal site.	Caltrans (Resident Engineer; Hazardous Waste Engineer)	Prior to and during soil moving (e.g., grading) and demolition activities		
CON-NC-14	Construction techniques utilized within and adjacent to the Los Angeles River channel will be designed to minimize effects on downstream conditions (e.g., flow rate or turbidity). During low flow, there will be no substantial contribution to or disruption of normal processes downstream. However, some minimal isolation of work may be required to minimize turbidity (e.g., air bubble curtain system or air-filled isolation casings around bridge support structures). Any potential disruption during storm events will be inconsequential amid typical high-volume flows.	Caltrans (Office Engineer, Resident Engineer; Biologist)	During construction		

No.	Avoidance, Minimization, and Mitigation Measures	Responsible Party	Timing/Phase	Action Taken to Comply with Avoidance, Minimization, and Mitigation Measures	Date
CON-NC-15	All debris generated during bridge construction and deconstruction will be prevented from settling into the Los Angeles River. When work is taking place over the Los Angeles River, floating booms (and/or other acceptable equipment) shall be used to contain debris. All construction-related debris shall be removed no later than the end of each day.	Caltrans (Resident Engineer; Biologist)	During bridge construction and deconstruction		
CON-NC-16	Operation of equipment and stockpiling of materials in storm channels, including the Los Angeles River, must be avoided during times of high flow. If such work is occurring, weather forecasts and storm predictions shall be closely monitored, and equipment and materials that could be affected by storms or other high-flow events shall be removed from the channel prior to such events.	Caltrans (Resident Engineer)	During high water flow events during construction		
CON-WET-1	Prior to the start of construction, Caltrans shall apply for and obtain an appropriate permit from the USACE for placement of fill in jurisdictional wetlands or waters pursuant to Section 404 of the Clean Water Act (CWA) and Section 10 of the Rivers and Harbors Act, respectively.	Caltrans (Biologist)	Prior to the start of construction		
CON-WET-2	Prior to the start of construction, Caltrans shall apply for and obtain a Lake or Streambed Alteration Agreement (SAA) from the CDFW for impacts to riparian and streambed areas under the jurisdiction of Section 1602 of the Fish and Game Code.	Caltrans (Biologist)	Prior to the start of construction		
CON-WET-3	Prior to the start of construction, Caltrans shall apply for and obtain a Water Quality Certification from the RWQCB for effects to jurisdictional wetlands pursuant to Section 401 of the CWA.	Caltrans (Biologist)	Prior to the start of construction		
CON-PS-1	During construction, Caltrans shall ensure that a qualified biologist will monitor construction within the vicinity of southern tarplant populations for the duration of the project to ensure that vegetation removal, BMPs, ESAs, and all avoidance and minimization measures are properly implemented.	Caltrans (Biologist)	During construction		

No.	Avoidance, Minimization, and Mitigation Measures	Responsible Party	Timing/Phase	Action Taken to Comply with Avoidance, Minimization, and Mitigation Measures	Date
CON-AS-1[1]	A biologist will monitor construction within the vicinity of burrowing owl (BUOW) locations (if present) for the duration of the project to ensure that vegetation removal, BMPs, ESAs, and all avoidance and minimization measures are properly implemented.	Caltrans (Biologist)	For the duration of the project, within the vicinity of burrowing owl (BUOW) locations (if present)		
CON-AS-2[1]	In order to avoid effects to nesting birds, bridge demolition, native vegetation removal, or tree-trimming (native or exotic) activities will occur outside of the nesting bird season (February 15–September 1). In the event that vegetation clearing is necessary during the nesting season, a qualified biologist must conduct a pre-construction survey to identify the locations of nests. Should nesting birds be found, an exclusionary buffer will be established by the biologist. This buffer will be clearly marked in the field by construction personnel under the guidance of the biologist, and construction or clearing will not be conducted within this zone until the biologist determines that the young have fledged or the nest is no longer active.	Caltrans (Biologist)	Tree-trimming (native or exotic) activities will occur outside of the nesting bird season (February 15–September 1), during construction		
CON-AS-3[1]	On-site pets and the deliberate feeding of wildlife shall be prohibited.	Caltrans (Resident Engineer)	Project duration		
CON-AS-4[1]	Within 30 days prior to any phase of construction, pre-construction surveys will be conducted to ensure that any BUOW that may occupy the site are not affected by construction activities. These pre-construction surveys are also required in order to demonstrate compliance with the Migratory Bird Treaty Act (MBTA) and the California Fish and Game Code. If any of the pre-construction surveys determine that BUOW are present, mitigation measures may be required. The specifics of the required measures shall be coordinated between Caltrans District Biologist and the resource agencies.	Caltrans (Biologist)	Within 30 days prior to any phase of construction		

No.	Avoidance, Minimization, and Mitigation Measures	Responsible Party	Timing/Phase	Action Taken to Comply with Avoidance, Minimization, and Mitigation Measures	Date
CON-AS-5[1]	If any of the pre-construction surveys determine that BUOW are present, one or more of the following measures may be required: (1) avoidance of active nests and surrounding buffer area during construction activities; (2) passive relocation of individual owls; (3) active relocation of individual owls; and (4) preservation of on-site habitat with long-term conservation value for the owl. The specifics of the required measures shall be coordinated between the Caltrans District Biologist and the resource agencies.	Caltrans (Biologist)	If any of the pre-construction surveys determine that BUOW are present		
CON-AS-6[1]	In June or July at least one year prior to construction, a qualified bat biologist shall survey structures that may be subject to impacts from the project to assess their potential for use as maternity roosts, since maternity colonies are generally formed in late spring. The qualified bat biologist shall also perform pre-construction surveys at these structures during the fall or winter season, since bat roosts can change seasonally and bats may over-winter at some locations where they are not present during the summer months. The maternity season and pre-construction surveys shall include a combination of structure inspection, exit counts, and acoustic surveys, and shall also include a component to determine whether night-roosting bats are present. If a maternity roost is found, no work will take place on that structure until the end of the maternity season and exclusion devices are installed by a qualified bat biologist. All bat preconstruction survey methods shall be coordinated between the Caltrans District Biologist and the CDFW.	Caltrans (Biologist)	In June prior to construction		
CON-AS-7	In order to prevent effects to bridge- and crevice-roosting bats (including bat maternity colonies), existing bridges with potential habitat identified during the pre-construction surveys shall have bat exclusion devices installed between September 1 and November 30 (with consideration of weather conditions) to exclude bats from directly affected work areas and avoid potential direct mortality. Exclusions are not always appropriate, and the decision of whether or not to implement a humane eviction/exclusion of bats shall be made on a case-by-case basis in consultation with a qualified bat biologist, and the complete eviction of roosting bats from a structure shall be avoided unless deemed necessary to avoid direct impacts	Caltrans (Resident Engineer; Biologist)	Between September 1 and November 30 (with consideration of weather conditions)		

No.	Avoidance, Minimization, and Mitigation Measures	Responsible Party	Timing/Phase	Action Taken to Comply with Avoidance, Minimization, and Mitigation Measures	Date
	to bats. Installation of the exclusion devices shall be conducted under the guidance of a qualified bat biologist and will be limited if weather conditions are such that they will be harmful to evicted species (e.g., cold temperatures, high winds). Such exclusion efforts must be continued to keep the directly affected work area(s) of direct impacts free of bats until the completion of construction, or until a qualified bat biologist determines that project activities will not result in negative impacts to bats. In conjunction with the humane eviction/exclusion, alternative bat-roosting habitat shall be installed to minimize temporary or permanent impacts to bat-roosting habitat. All exclusion techniques shall be coordinated between the Caltrans District Biologist and the CDFW.				
CON-AS-8	To minimize direct impacts to bats from the temporary loss of roosting habitat during a humane eviction or exclusion, alternate bat-roosting habitat structures shall be installed prior to the eviction/exclusion of bats from that structure. The design, numbers, and locations of these roost structures should be determined in consultation with a qualified bat biologist. If permanent, direct impacts to bat-roosting habitat are anticipated, alternate roosting habitat shall be provided at a 1:1 ratio to ensure no net loss of bat roosting habitat. All bat-roosting habitat mitigation shall be coordinated between the Caltrans District Biologist and the CDFW.	Caltrans (Resident Engineer; Biologist)	Prior to the eviction or exclusion of roosting bat habitat		
CON-AS-9	In order to avoid impacts to maternity-roosting bats and nonvolant (flightless) juvenile bats, tree removal or trimming (particularly of palm and eucalyptus trees) activities will occur outside of the bat maternity season (April 1–August 31); this time period coincides with the clearing and grubbing restrictions typically associated with the bird nesting season. If tree trimming or removal of large trees or palm trees cannot be avoided during the bat maternity season, these trees should be surveyed by a qualified bat biologist prior to removal and/or monitored during removal to ensure that no roosting bats are present.	Caltrans (Resident Engineer; Biologist)	Tree removal or trimming during April 1 through August 31		

No.	Avoidance, Minimization, and Mitigation Measures	Responsible Party	Timing/Phase	Action Taken to Comply with Avoidance, Minimization, and Mitigation Measures	Date
CON-AS-10[1]	In order to prevent effects to bridge- and crevice-nesting birds (e.g., swifts and swallows), bird exclusion devices shall be installed between September 1 and December 31 (with consideration of weather conditions) at existing bridges where potential habitat is identified during the pre-construction surveys. Installation of the exclusion devices will be conducted under the guidance of a qualified biologist (in coordination with a qualified bat biologist to ensure no impacts to bats such as incidental entrapment occur) and will be limited if weather conditions are such that they will be harmful to evicted species (e.g., cold temperatures). Such exclusion efforts must be continued to keep the structures free of birds until the completion of construction. All exclusion techniques shall be coordinated between the Caltrans District Biologist and the resource agencies.	Caltrans (Resident Engineer; Biologist)	All work on existing bridges with potential habitat identified during the pre-construction surveys (including bat maternity roosts) will have bat/bird exclusion devices installed between September 1 and November 30 (with consideration of weather conditi ons)		
CON-AS-11[1]	In order to prevent project effects to bridge-nesting birds (i.e., swallows), all bird nests shall be removed prior to construction from existing bridges where work will be conducted between February 15 and September 1. Nests shall be removed under the guidance and observation of a qualified biologist prior to February 15 of that year, before the swallow colony returns to the nesting site. Removal of swallow nests that are under construction must be repeated as frequently as necessary to prevent nest completion or until a nest exclusion device is installed (such as netting, plastic sheeting, or a similar mechanism that keeps birds from building nests) is installed. Nest removal and exclusion device installation shall be monitored by a qualified biologist. Such exclusion efforts must be continued to keep the structures free of swallows until September 1 or completion of construction. All nest exclusion techniques will be coordinated between the Caltrans District Biologist and the resource agencies.	Caltrans (Biologist, Resident Engineer)	Prior to construction		

No.	Avoidance, Minimization, and Mitigation Measures	Responsible Party	Timing/Phase	Action Taken to Comply with Avoidance, Minimization, and Mitigation Measures	Date
CON-AS-12	Some species of bat, including Yuma myotis, are known to roost within swallow nests. Although swallow nests will be removed outside of the swallow nesting season, bats may roost in these mud nests at any time of the year. Therefore, if swallow nests are removed to prevent swallows from nesting within the project area during construction activities, they should be removed in a manner that ensures they do not fall to the ground. To the greatest extent possible, mud nests should be removed by scraping them from the attachment surface and keeping the nest intact until it is examined and determined unoccupied by a qualified bat biologist. This examination should occur concurrently or immediately following the removal of each mud nest.	Caltrans (Resident Engineer; Biologist)	During construction		
CON-AS-13[1]	Construction work in the vicinity of the Los Angeles River, adjacent parks, wetlands, and vacant lands will be limited to daylight hours to minimize disturbance to wildlife movement to the best extent feasible. However, this may be difficult to achieve since most highway construction in the region is conducted at night to avoid impacting commuter traffic. If work must be done at night, noise and lighting will be directed away from the Los Angeles River, adjacent parks, wetlands, and vacant lands.	Caltrans (Resident Engineer; Biologist)	During construction		
CON-AS-14[1]	The Los Angeles River corridor will be kept clear of all equipment or structures that could potentially serve as barriers to wildlife passage.	Caltrans (Resident Engineer; Biologist)	During construction		
CON-TES-1	A Fisheries Management Plan is expected to be required through informal consultation with the National Marine Fisheries Service (NMFS). If required, a Fisheries Management Plan will be developed and submitted to the NMFS for approval prior to completion of the final design. The Fisheries Management Plan will also be submitted to the United States Army Corps of Engineers (USACE), the Regional Water Quality Control Board (RWQCB), and the California Department of Fish and Wildlife (CDFW), as necessary, for information and permit condition compliance. The Fisheries Management Plan will contain provisions for changes to the plan such as alternative mechanisms, if necessary, during	Caltrans (Resident Engineer; Biologist)	Prior to completion of final design		

No.	Avoidance, Minimization, and Mitigation Measures	Responsible Party	Timing/Phase	Action Taken to Comply with Avoidance, Minimization, and Mitigation Measures	Date
	project design and/or construction to achieve the stated goals and performance standards.				
CON-TES-2	A biological monitor will be on site during pile-driving activities in the Los Angeles River to monitor fish that may become injured or killed during the pile driving. All pile driving and bridge construction will take place during daylight hours. If fish are observed to be injured or killed, pile driving will cease, and the CDFW and NMFS will be contacted to determine appropriate steps to avoid additional effects to the fish. The results of the pile-driving monitoring will be reported to Caltrans within two weeks following the completion of pile-driving activities at each location.	Caltrans (Biologist; Resident Engineer)	During pile-driving activities in the Los Angeles River		
CON-TES-3	To minimize impacts of pile driving in the Los Angeles River, minimal impact construction equipment and methods (e.g., a vibrating driver, crane, vibratory hammer, or hydraulic press) will be used during construction.	Caltrans (Resident Engineer)	During construction		
CON-TES-4	To minimize impacts of pile driving in the Los Angeles River, sound levels will be monitored during pile-driving activities in the Los Angeles River to ensure that peak sound levels do not exceed the threshold for injury to fish (206 maximum or peak measured decibel level [dB_{peak}] or 183 dB sound exposure level [SEL]). If sound levels exceed threshold, additional mitigation measures (e.g., work when the current is reduced, using a hydraulic hammer, the smallest hammer needed to advance the pile, air bubble curtain system, or air-filled isolation casings) will be developed in consultation with the resource agencies.	Caltrans (Noise Specialist; Resident Engineer)	During construction		
CON-INV-1[1]	Prior to construction, a *Caulerpa taxifolia* (nonnative seaweed/ algae) survey will be conducted according to the National Marine Fisheries Service (NMFS) Control Protocol in the Biological Study Area (BSA). If this species is found, then protocols for the eradication of *Caulerpa* will be implemented to remove this species from the I-710 Corridor Project Study Area. The 2008 Caulerpa Control Protocol will be followed, which requires survey results to be submitted to the NMFS and CDFW within 15 days of completion.	Caltrans (Resident Engineer; Biologist)	Prior to construction		

No.	Avoidance, Minimization, and Mitigation Measures	Responsible Party	Timing/Phase	Action Taken to Comply with Avoidance, Minimization, and Mitigation Measures	Date
	This protocol also requires that the NOAA and CDFW be notified within 24 hours if *Caulerpa* is identified at a permitted project site.				
CON-INV-2[1]	Prior to the use of equipment in aquatic situations, the equipment will be thoroughly cleaned and inspected to prevent the introduction of nonnative aquatic species, especially mollusks, in accordance with CDFW Aquatic Invasive Species Decontamination Protocol.	Caltrans (Resident Engineer)	Prior to the use of construction equipment in aquatic situations		
CON-INV-3[1]	A weed abatement program will be developed to minimize the importation of nonnative plant material during and after construction. Eradication strategies will be employed should an increase in invasive plants occur. At a minimum, this program will include: ▪ During construction, the Construction Contractor shall inspect and clean construction equipment at the beginning and end of each day and prior to transporting equipment from one project location to another. ▪ During construction, soil and vegetation disturbance will be minimized to the greatest extent feasible. ▪ During construction, the Construction Contractor shall ensure that all active portions of the construction site are watered a minimum of twice daily or more often when needed due to dry or windy conditions to prevent excessive amounts of dust. ▪ During construction, the Construction Contractor shall ensure that all material stockpiled is sufficiently watered or covered to prevent excessive amounts of dust. ▪ During construction, soil/gravel/rock will be obtained from weed-free sources. ▪ Only certified weed-free straw, mulch, and/or fiber rolls will be used for erosion control. ▪ After construction, affected areas adjacent to native vegetation will be revegetated with plant species approved	Caltrans (Biologist)	During and after construction		

No.	Avoidance, Minimization, and Mitigation Measures	Responsible Party	Timing/Phase	Action Taken to Comply with Avoidance, Minimization, and Mitigation Measures	Date
	by the Caltrans District Biologist that are native to the vicinity. ▪ After construction, all revegetated areas will avoid the use of species listed in California Invasive Plant Council's (Cal-IPC) California Invasive Plant Inventory that have a high or moderate rating. ▪ Eradication procedures (e.g., spraying and/or hand weeding) will be outlined should an infestation occur; the use of herbicides will be prohibited within and adjacent to native vegetation, except as specifically authorized and monitored by the Caltrans District Biologist.				
CON-CUM-1	Prior to completion of Plans, Specifications, and Estimates for construction, Caltrans shall consult with the lead agencies of other major projects within two miles of the I-710 Corridor Project to ensure that the construction plans are coordinated and do not result in conflicts regarding construction staging areas, roadway closures, or detour routes.	Caltrans (Resident Project Design Engineer)	Prior to completion of PS & E		

CLIMATE CHANGE

Climate change is analyzed in Section 2.20 of this Environmental Impact Report/Environmental Assessment (EIR/EA). Neither the EPA nor the FHWA has issued explicit guidance or methods to conduct Proposed Project-level greenhouse gas (GHG) analysis. As stated on the FHWA's climate change website (http://www.fhwa.dot.gov/environment/climate_change/index.cfm), climate change considerations should be integrated throughout the transportation decision-making process, from planning through Proposed Project development and delivery. Addressing climate change mitigation and adaptation up front in the planning process will aid decision-making and improve efficiency at the program level, and will inform the analysis and stewardship needs of Proposed Project-level decision-making. Climate change considerations can easily be integrated into many planning factors, such as supporting economic vitality and global efficiency, increasing safety and mobility, enhancing the environment, promoting energy conservation, and improving the quality of life.

Because there have been more requirements set forth in California legislation and executive orders on climate change, the issue is addressed in the California Environmental Quality Act (CEQA) chapter (Chapter 3) of this environmental document and may be used to inform the NEPA decision. The four strategies set forth by the FHWA to lessen climate change impacts do correlate with efforts that the State has undertaken and is undertaking to deal with transportation and climate change; these strategies include improved transportation system efficiency, cleaner fuels, cleaner vehicles, and reduction in the growth of vehicle hours traveled.

[1] = Mitigation Measure for Significant impacts under CEQA